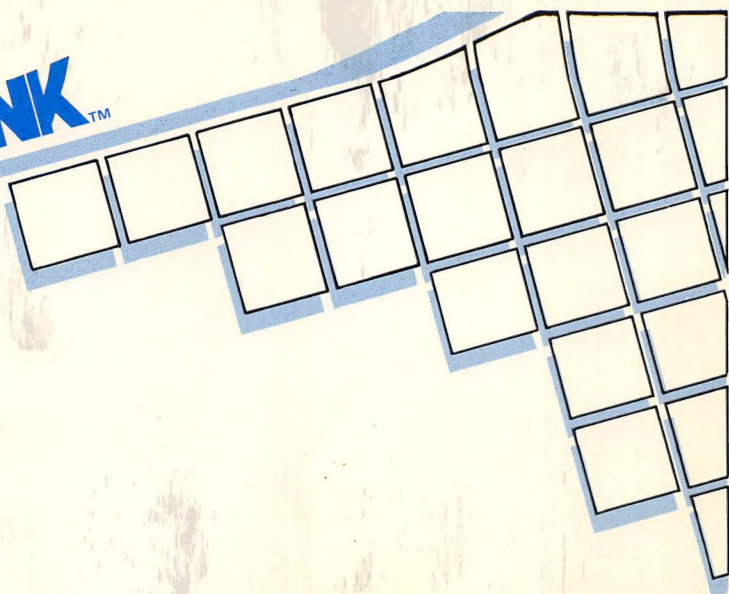
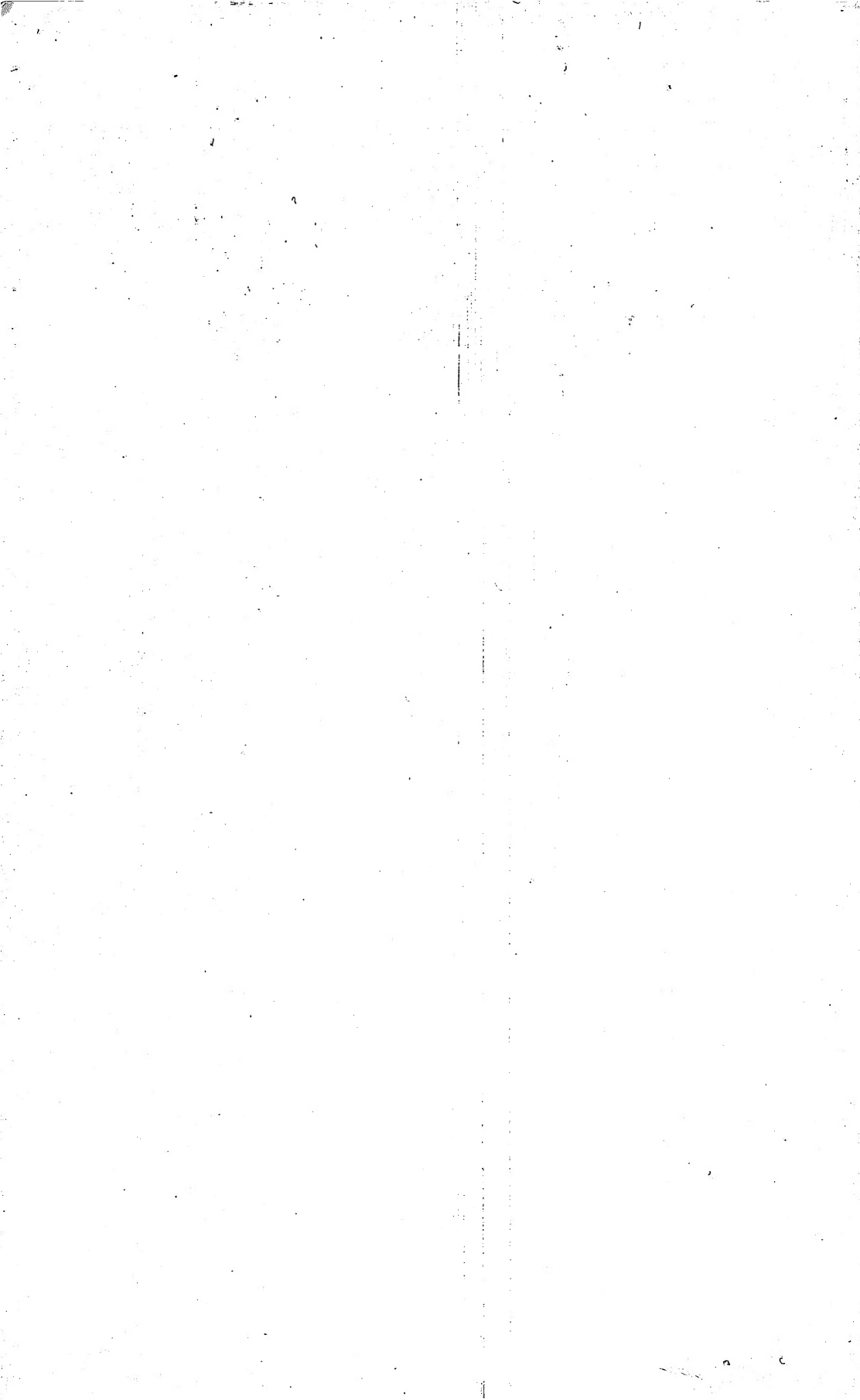


OUT-THINK™



User's Guide



OUT-THINK™

USER'S GUIDE

By

Anne Hickman

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KAMASOFT, Inc., P.O. Box 5549, Aloha, OR 97007
(503) 649-3765**

**OUT-THINK Program Written by: Adam Trent
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KAMASOFT, Inc., P.O. Box 5549, Aloha, OR 97007
(503) 649-3765**

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WS Configuration

TOPICMGR HELP - Options to control the Topic Manager

H	Show this Help Screen	SPBAR	Advance to Next Topic
P	Prepare New Topic	RETURN	Edit Current Topic
K	Kill Current Topic	F	Flash-Cards [Title,Leaf]
R	Resize Current Topic	D	Directory of Files
B	Backup/Copy Current Topic		
Q	Display Text in Topic	ESC	Show/Set Status
N	New Context (Change Disk)	ESC D	Set System Date/Time
C	List Marked Topics Context	ESC L	Lock Current Topic
T	Mark Topic for Searching	ESC P	Set Drive Search Path
-	Unmark Topic for Searching	ESC H	Set System Help Level
L	Lookup String (in Context)	ESC V	Set Keytree View Range
J	Jump to Edit Topic by Name	ESC O	Toggle Show of Owners
G	Go to Edit Topic (Show List)	ESC ESC	Escape OUT-THINK to DOS

+ Indicates Marked Topic
- Indicates Unmarked Topic

OUTLED HELP - Options to control the Screen Editor for Outlines

H	Display this Help Screen	TAB	Mark Current Branch
CTRL-E	Go Back One Title	T	Mark Current Stem
CTRL-X	Go Forward One Title	-	Unmark Current Stem
U	Go Up to Parent Title	DEL	Delete [Stem,Branch,Marked]
D	Go Down to First Child Title	Q	Display Leaf of Current Title
N	Go Next Title on Same Level	SPBAR	Display Leaf and Go Forward
P	Go Previous Title on Same Level	RETURN	Edit Leaf of Current Title
F	Find String (Forward in Titles)	J	Jump to Edit Topic by Name
L	Lookup String (in Topic Context)	G	Go to Edit Topic (Show List)
CTRL-W	Center Screen on Title	ESC	Secondary Options
CTRL-C	Scroll Next Outline Screen	----- TITLE EDITOR OPTIONS -----	
CTRL-R	Scroll Previous Screen	CTRL-S	Cursor Back (Left)
C	Collapse Entire Branch	CTRL-D	Cursor Forward (Right)
X	Expand Next Level Down	CTRL-A	Cursor to Beginning of Item
B	Expand Entire Current Branch	CTRL-F	Cursor to End of Item
Y	Toggle Entry of Subtitles	CTRL-G	Delete Cursor Character
I	Insert New Title [Down,Next]	DEL	Delete Previous Character
=	Edit Current Title	CTRL-Y	Delete to End of Item
E	Edit [Title,Leaf,Branch]	CTRL-U	Undo All Changes
R	Re-Edit Outline at Top	RETURN	Save New Edited Item and Exit
M	Move [Left,Right,Down,Next]	ESC	Escape Edit with no Changes

WS Configuration

OUTLED ESC HELP - Secondary Outline Editor Options

ESC S V	Show Current View	ESC P K	Print Keys in Branch
ESC S F	Show Current Focus	ESC P T	Print Titles in Branch
ESC S K	Show Keys in Branch	ESC P B	Print Text in Branch
ESC S T	Show Titles in Branch	ESC P O	Print Outline in Branch
ESC S B	Show Text in Branch	ESC P M	Print Marked Stems
ESC Q V	Query View	ESC P Q	Print Query of Context
ESC Q F	Query Focus	ESC O K	Outfile Keys in Branch
ESC Q K	Query Keys	ESC O T	Outfile Titles in Branch
ESC Q T	Query Titles	ESC O B	Outfile Text in Branch
ESC Q S	Query Stem	ESC O O	Outfile Outline in Branch
ESC Q B	Query Branch	ESC O M	Outfile Marked Stems
ESC Q C	Query Context	ESC C D	Copy Marked Branch Down
ESC F L	Format Stem Left Justify	ESC C N	Copy Marked Branch Next
ESC F F	Format Stem Full Justify	ESC C E	Extract Branch as Topic
ESC F V	Format Stem Verbatim	ESC C M	Copy Marked Stems
ESC F P	Format Stem Page Break	ESC I	Insert ASCII Text File
ESC F H	Format Stem Hidden Title	ESC D	Show Directory of Files
ESC F C	Clear Stem Formatting	ESC H	Show This Help Screen
ESC F B	Format Stems in Branch	ESC T	Exit to Topic Manager
ESC F A	Assign Format Parameters	ESC ESC	Exit OUT-THINK to DOS

LEAFED HELP - Options to control the Screen Editor for Leafs

CTRL-D	Cursor Forward (Right)	CTRL-V	Toggle Insert/Overstrike
CTRL-S	Cursor Back (Left)	CTRL-P	Insert Next Character
CTRL-X	Cursor Next Line (Down)	CTRL-B	Reform Current Paragraph
CTRL-E	Cursor Previous Line (Up)		
CTRL-A	Cursor to Beginning of Line	ESC H	Show this Help Screen
CTRL-F	Cursor to End of Line	ESC M	Mark Start of Text Block
CTRL-C	Scroll Next Screen of Text	ESC W	Wipe Block to Yank Buffer
CTRL-R	Scroll Previous Screen of Text	ESC C	Copy Block to Yank Buffer
CTRL-W	Center the Screen	ESC P	Print New Edited Leaf
CTRL-Q	Find String (Search Forward)	ESC U	Update New Leaf to Topic
CTRL-Z	Find & Replace with Query	ESC Q	Update Leaf & Quit Editor
CTRL-G	Delete Cursor Character	ESC ESC	Exit Leaf Editor
DEL	Delete Previous Character	ESC S P	Show % New Leaf Full
CTRL-T	Wipe Next Word	ESC S L	Show Old (Unmodified) Leaf
CTRL-Y	Wipe to End of Line	ESC S F	Show Focus to Current Key
CTRL-N	Open New Line for Insert	ESC S V	Show View Near Current Key
CTRL-O	Open New Stem (Split Leaf)	ESC S K	Keys in Current Branch
CTRL-U	Insert from Yank Buffer (Undo)	ESC S T	Titles in Current Branch

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Chapter 1

Introduction

See the Forest (Before Getting to the Trees)

OUT-THINK is a member of a new class of productivity software called Outline Processing. While earlier productivity software (like spreadsheet programs) dealt primarily with numerical data, the more recent productivity tools enhance your ability to process thoughts. Idea processors, as they are sometimes called, deal primarily with your ideas as you create, develop and express them through the written word.

The benefit to you? A boost to your thinking processes and your writing processes. You can harness the computer's power to help you brainstorm, plan, write, learn, study, organize thoughts, classify data, analyze ideas, catalogue items, track information, and make presentations.

What Mrs. Higginbotham Never Told You

Outline processors, like OUT-THINK, allow you to create and develop electronic outlines. You are probably familiar with the good, old-fashioned kind of outlines (especially if you had an English teacher like Mrs. Higginbotham). Outlines help you clarify your thoughts at first by giving you focus and direction. They help you organize your writing, and, then, they keep you from rambling during your writing development.

What Mrs. Higginbotham didn't tell you was that there's more to outlining than meets the eye. Outlines not only help you prepare written materials, but they also provide a powerful approach to thinking.

The outline approach rests on the natural way that it lets you handle information. For example, even with a mundane task like making a grocery list, you probably group the items that can be found in the dairy section, the meat section, the canned goods section, the bakery section, and the fresh vegetable section of the store. By organizing the list and grouping similar items, you can make the shopping trip more efficiently.

You probably apply the same approach to doing many chores and tasks. You organize the information in a structure that resembles an outline. This type of structure is called a hierarchy. The power of OUT-THINK lies in its unique approach to storing information in hierarchies.

Because the information is stored electronically, you can easily alter it, look at it, reorganize it, and print it out on paper. Outline processing brings all the same advantages to your ideas that spreadsheet programs bring to numbers or that word processors bring to words.

However, outline processors add a new dimension to processing text that most word processors don't offer. Word processors are oriented toward producing formatted, printed documents; they are output-document oriented.

Outline processors, on the other hand, help you express your ideas in text to begin with; they are input/author oriented. Outline processors allow you to tie together your creative ideas in a way that is disciplined and structured, yet dynamic and flexible. You can name a piece of text and juggle it around based on its relationship to other pieces of text. Outline processors keep track of the structure embodied in the text and let you manipulate the structure itself, separate from the textual context. They truly offer a new dimension to creating and organizing text.

Getting the Big Picture

OUT-THINK stores text outlines in files called Topic Files. Topic files are kept on disk as CP/M files. They are displayed in the CP/M directory and can be copied with CP/M programs like PIP. However, topic files are **NOT** standard text files. They cannot be edited, printed, or typed with CP/M utilities.

Topic files contain what can be thought of as structured text. Structured text models the way that you structure information in your own mind by organizing pieces of text into a hierarchy. Topic files are comprised of two elements:

- Titles
- Text leaves (i.e., pages of text)

Together the two elements are called STEMS. Stems are arranged hierarchically like an outline or table of contents to a book. These hierarchies are not rigid, static structures, but are brought to life by a rich set of OUT-THINK commands that allow you to dynamically grow the outlines as your concepts evolve.

To learn how to use OUT-THINK, you need to learn three sets of commands:

- Topic Manager commands
- Outline Editor commands
- Leaf Editor commands

The topic manager helps you to manage topic files on the disk. You can prepare new topics, kill old ones and perform other global operations to manage topic files.

The outline editor presents an interactive, full-screen editor for inserting, deleting, editing, moving, copying, displaying, and printing items in an outline.

The leaf editor lets you edit the optional leaf of text that can be attached to each title in the outline. The leaf editor is also an interactive, full screen editor.

Help is available for each set of commands by typing:

- H in the Topic Manager
- H and ESC H in the Outline Editor
- ESC H in the Leaf Editor

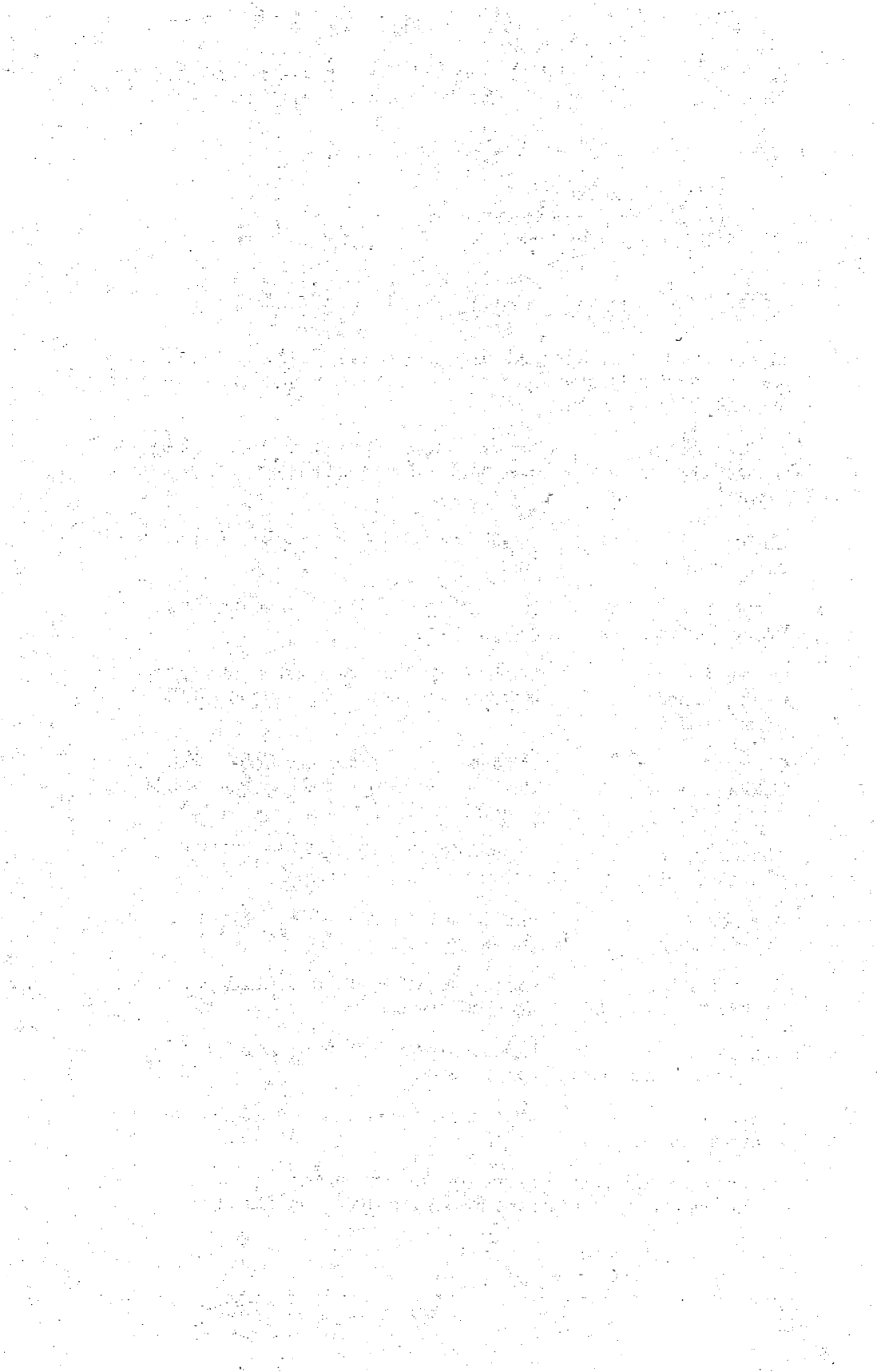
Learning to Use OUT-THINK

This manual serves as your guide to learning OUT-THINK. By consulting the manual, you should find the answers to most of your questions about how to run the OUT-THINK program.

The User's Guide is divided into five chapters, four appendices, a glossary, and an index. If you are looking for some specific information, here's where you can find it:

Chapter 1 Introduction	provides an overview of the system and the User's Guide.
Chapter 2 Before You Get Started	is required reading. Don't ignore the notes in this chapter.
Chapter 3 Getting Started with the Basics	introduces important terms and provides step-by-step instructions to get you started with OUT-THINK.
Chapter 4 Getting Down to Serious Business	contains a tutorial based on a "real-life" project. It guides you through day-to-day operations following a typical scenario for using OUT-THINK.
Chapter 5 Command Reference	contains descriptions of all the OUT-THINK commands organized by function.
Appendix A Troubleshooting	lists theabend (abnormal ending) messages and answers common questions.
Appendix B For KAMAS Users Only	compares OUT-THINK to KAMAS for users who have both products.
Appendix C WS-PW Conversion Chart	lists the commands for both possible OUT-THINK configurations.
Appendix D Aliases and Shortcuts	lists aliases and shortcuts for some of the commands.

The manual concludes with a glossary of terms introduced throughout the manual and an index. Tear out reference cards are also attached at the end of the book.



Chapter 2

Before You Get Started

A Few Words to the Wise

The User's Guide describes how to use OUT-THINK. It assumes that you have already backed up the master and installed the program on your computer.

Before you progress any further with learning OUT-THINK, see the READ ME FIRST booklet and follow its instructions for backing up your master and installing your working copy of OUT-THINK.

A Few Words to the Un-Wise

DON'T TAKE ANOTHER STEP UNTIL YOU HAVE MADE A "WORKING COPY" OF YOUR MASTER AND INSTALLED THAT WORKING COPY OF OUT-THINK. FOLLOW THE INSTRUCTIONS IN THE "READ ME FIRST" BOOKLET.

Conventions Followed in the User's Guide

When you installed OUT-THINK, you chose between two different styles of commands for the editors.

You could have chosen a set of commands that resemble the popular Wordstar-style editor (WS), or you could have chosen a set of commands resembling a Perfect Writer-style editor (PW). The functions available in OUT-THINK are identical no matter which set of commands you prefer. Only the actual keys that you press differ between the two configurations.

For consistency, all the examples in the manual use the WS-style commands. For those of you who prefer the PW-style configuration, Appendix C contains a chart that lists each WS-style command and its corresponding PW-style command. You might find it handy to make a copy of this chart to keep close by when you're going through the examples in the manual.

We've also adopted a few conventions in the manual for describing commands:

examples	all screens and keyboard entries are shown using this typestyle.
CTRL-X	means to hold down the control key (usually labeled CTRL) at the same time that you press the key shown after the dash. This action is similar to typing a shifted key. The key shown after the dash can be typed in upper or lower case. The manual usually shows the key in upper case for emphasis.
ESC X	means to type two keys in sequence: first the escape key (usually labeled ESC) followed by the other key shown. The key following ESC can be typed in upper or lower case. The manual usually shows the key in upper case for emphasis.
RETURN	means to press the return key (usually labeled RETURN or ENTER).
SPBAR	means to press the space bar.
DEL	means to press the delete key (usually labeled DEL). Some keyboards do not have a delete key. CTRL-— can be used as a substitute.
TAB	means to press the tab key. (You can use CTRL-I as a substitute for the tab key if your keyboard does not have one.)
X	any single character shown in uppercase means to press that key. For example, A means to press the A key; = means to press the = key, etc.
text	boldfaced type is used in the examples in Chapters 3 and 4 to emphasize the instructions that you must follow to carry out the example. Boldfaced instructions are interspersed with normal text that explains the commands you are typing.

When we use the term “enter” in the manual, we mean that you must type some information followed by the RETURN key. When we say “type” or “press a key”, we mean to type the information without pressing the RETURN key afterwards.

Most OUT-THINK commands are single key presses and don't require the RETURN key. However, some commands prompt you for additional information or parameters like filenames or file sizes. When you type in your response in these cases, you must follow the information with the RETURN key.

Chapter 3

Getting Started with the Basics

This chapter contains the basic information that you need to start using OUT-THINK.

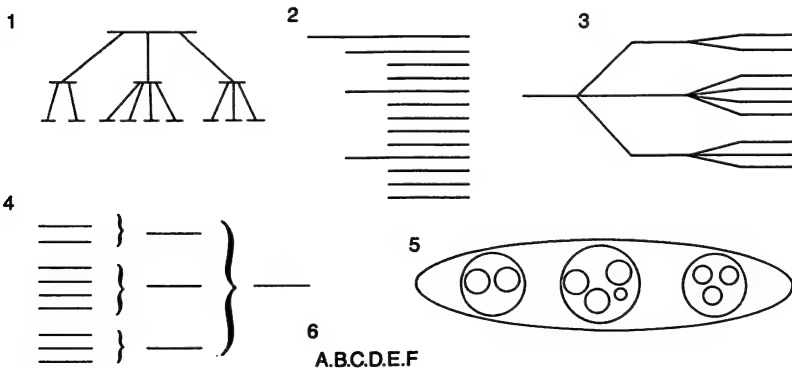
At first, a lot of new terms are introduced at a rapid clip. But a careful reading of this material now will prove worthwhile later.

The chapter ends with a brief tutorial session designed to give you a sample of OUT-THINK's capabilities.

Outlining on Its Own Terms

OUT-THINK helps you to arrange information (thoughts and ideas) into the hierarchical structure of an outline. A hierarchy is a collection of elements organized in levels so that each element (except the top) is immediately subordinate to exactly one previous element (its parent) and every element is superordinate to zero or more other subsequent elements (its children).

Hierarchies or outlines can be visualized in many ways as shown in the drawing below.



Ways to Visualize Items in a Hierarchy

Some of the visualizations shown above look like a tree, with its many limbs and branches spreading out from the trunk and ending with a stem and a leaf. Outlines can also be visualized in a way that is similar to a family tree. OUT-THINK displays outlines on the screen using indentation as shown in number 2 above.

Because of the similarity of outlines to tree-like structures and family trees, some terms from both of those areas have been adopted to talk about the outlines in OUT-THINK.

The Items in a Topic File

Items within a topic file are arranged in levels. There is only one item at the top level, called the top. Each item, except the top, is immediately below or subordinate to exactly one other item, called its parent. Every item, including the top can be immediately above or superordinate to any number of items, called its children. An item's parent, its parent's parent, its parent's parent's parent, and so on up to the top are called the item's ancestors. An item's children, its children's children, its children's children's children and so on are called the item's descendents. All the children of a given parent are on the same level and are called siblings.

This terminology is easier to relate to once you get the hang of the relationships between the items (puns intended). For example, take the following outline:

```
The Natural World
  Animals
    ...
      Animals with backbones
        Mammals
        Reptiles
        Birds
      ...
      Animals without backbones
        ...
        Worms
  Plants
    Vegetables
    Fruits
    ...
  Minerals
    Metals
    Stones
```

The “...” indicates more items on that level. The level of indentation indicates the level of an item in the outline. In this example, Animals, Plants, and Minerals are children of The Natural World, which is both their parent and the top. Animals with backbones, Animals, and The Natural World are all ancestors of Mammals. (They are also ancestors of Reptiles and Birds.) The item Mammals is a descendent of The Natural World, of Animals, and of Animals with backbones. Metals and

Stones are both subordinate to Minerals, are both children of Minerals, and are both descendents of Minerals. The item Plants is not an ancestor of Metals or Stones. The top item, in this case, The Natural World, is always an ancestor of every item in the outline.

Each item in the outline is called a stem. An item taken together with all its descendents is called a branch. In the example given above, every item, including the top, is a stem. The item Animals is a stem; the item Stones is a stem; the item The Natural World is a stem; and so on. The items Animals, Animals with backbones, Mammals, Reptiles, Birds, ... taken together form a branch.

Each stem in the outline is made up of a title and an optional text leaf. Each title is made up of a key and an optional subtitle. In the example above, no leaves or subtitles are shown; only the key is illustrated for each stem.

A leaf contains text up to 2420 characters in length. A key can be a maximum of 31 characters long. A subtitle can be a maximum of 63 characters in length. Thus, a title can be 94 characters long. For example,

TOPIC — a database of text

Topics contain structured text organized into hierarchies, which model the way that we represent knowledge. There can be any number of levels within a topic or any number of items on a level. Topic files can range in size from 8K bytes to 8M bytes. On a disk with about 200K bytes, you can have a topic file with a maximum of about 1500 items if you do not have any leaves (which would be unusual). As described later, you can access 16 of these topic files at one time.

BRANCH — a part of a topic

Each branch within a topic is made up of a stem taken together with all of its descendents.

STEM — a single item in a topic

A stem is the basic unit within a topic.

TITLE — a part of a stem

A title contains up to 94 characters.

KEY — the required part of a title

A key is part of a title up to 31 characters long.

SUBTITLE — an optional part of a title

A subtitle is the secondary part of a title up to 63 characters long.

LEAF — an optional part of a stem

Each leaf can contain up to 2420 characters.

In the preceding example, each line beginning with a capitalized word is a title. The capitalized word is the key, and the remainder of the line is the subtitle. It is not required that keys be entered in uppercase. They are shown here in uppercase as a convention. The paragraph of text beneath each title is the leaf.

Keys and Rapid Retrieval

The key word or key phrase for each stem is more significant than merely being a required part of the title as described in the previous section.

The key plays a major role in the Information Retrieval features of OUT-THINK. A key can be viewed as the name of its stem, and can be used to unlock and retrieve information from that stem.

If you think about a topic as being organized like the table of contents in a book, then each stem in the topic is like a chapter, section, or subsection of the book. The leaf is like the text in the book; the title is like a line in the table of contents; and the key is like the page number on that line.

You can look in the table of contents for the chapter, section, or subsection containing the information you want. Then, using the page number, you can go directly and immediately to the text in the book and find the information you are looking for.

A key provides a similar type of immediate access within a topic. You can rapidly move to any stem in the topic using the Lookup command in OUT-THINK and specifying a key word or key phrase as the value you want to search for. However, keys are not arbitrary like page numbers are. You can make keys that contain meaningful phrases that describe the content of your text.

When you Lookup a key, you don't have to spell the key exactly as it appears in the topic file. OUT-THINK uses a Sounds-Like method so you can retrieve the stem based on a key that "sounds like" the one you specify. The Sounds-Like method lets you use a phonetic approach to spelling. If you can "spell" the key phonetically, you don't have to spell it correctly.

All the keys that sound like the one you specified are displayed as candidates until you select one of them and go to that stem.

The Lookup command provides a second method for you to retrieve information from a topic by searching rapidly through all the titles and text for an exact match to the string that you specified. As with the key search, candidates are displayed until you select one of them and go to that stem.

Going Places

Besides retrieving information directly by looking up stems, you can also climb around on your outlines by moving a cursor on the screen in the Outline Editor.

Your current location in the outline is indicated by the cursor character. The current cursor designates a single stem within the outline called the current stem. The title of the current stem is the current title; its key is the current key; its subtitle is the current subtitle; and its leaf is the current leaf.

Commands in the Outline Editor move the cursor around and change your current location in the outline. Moving the outline cursor is like moving the cursor in a word processor, only the outline cursor is aware of the structure embodied in the text and follows that structure.

When you go to the parent of the current stem, you have gone up. When you go to the first child of the current stem, you have gone down. When you go to the sibling immediately following the current stem, you have gone next. When you go to the sibling immediately preceding the current stem, you have gone previous. When you go to the immediately preceding stem regardless of its relationship to the current stem, you have gone back. When you go to the immediately following stem regardless of its relationship to the current stem, you have gone forward.

If all this getting around is making you dizzy, let's take The Natural World topic shown before as an example. Let's say that your current location is Plants. If you go up from Plants, you will be at The Natural World. If you go down from Plants, you will be at Vegetables. If you go next from Plants, you will be at Minerals. If you go previous from Plants, you will be at Animals. If you go back from Plants, you will be at Worms. If you go forward from Plants, you will be at Vegetables. Going forward, in this last case, is the same as going down. If you go forward from Worms, you will be at Plants.

A Few Final Words

As described earlier, OUT-THINK stores your outlines in topic files. You can store just one outline per topic file or you can have several outlines as branches within a single topic file. It's up to you. OUT-THINK does not impose any restrictions on the number of levels within a topic or the number of items on a level.

Topic files always end with the CP/M file extension ".TOP". You should be careful not to use the .TOP extension for other files not created by OUT-THINK (or KAMAS). The CP/M file name for a topic file is automatically assigned by OUT-THINK based on the topic name that you specify. You should avoid renaming topic files with CP/M utilities. Instead, use only OUT-THINK commands to change the topic name.

There are three topics supplied with OUT-THINK. One of these is used by the system during installation and then deleted from your working system disk, so you'll probably never know it's there. It contains the help messages used during installation. The second topic contains OUT-THINK help screens, and the third contains a demo topic that you will be using during the next section of the User's Guide.

In addition, you can create any number of new topics that you want. You can access up to sixteen topics at the same time, although you can have as many topic files as will fit on your disks. Accessing a topic means that the topic is available for searching.

You make a topic accessible by marking it for searching in the Topic Manager or by entering it (i.e., editing it with the Outline Editor). When you edit a topic, OUT-THINK automatically marks it for searching. The set of topics currently marked for searching make up what is called the current topic context.

The Lookup command searches through the entire current topic context. It does not search any topic files that have not been marked for searching. If you have marked sixteen topics, you can unmark the ones that you no longer need to search to make room for new ones that you want to search or edit.

Your First Taste of OUT-THINK — A Guided Tour

This section helps you get going fast with OUT-THINK. It gives you a guided tour of OUT-THINK's features and lets you sample commands along the way. The tutorial session is set up so you can follow along at your computer if you want to. Just make sure that you have installed OUT-THINK according to the instructions in the READ ME FIRST booklet before you try to run the examples. (Note: Even if you are already familiar with KAMAS, we still recommend that you follow these examples to help you learn OUT-THINK more quickly.)

This tutorial describes:

- OUT-THINK's screen displays
- getting help
- recovering from errors
- entering commands
- cancelling commands
- exiting from OUT-THINK

By the time you finish the tutorial session, you'll be familiar with the basic operations of OUT-THINK, and you'll be ready to put outline processing to work.

NOTES

All the examples in this manual assume that you have installed OUT-THINK for a Wordstar-style editor. All examples refer to the WS-style commands. If you have installed OUT-THINK for an editor that is similar to Perfect Writer, see Appendix C for a conversion chart. You might want to make copies of this chart for use during these sample sessions.

Throughout the examples in this chapter and the next, instructions for you to type commands are interspersed with text explaining what the commands do. We used **boldfaced** type to emphasize the instructions that you must follow to carry out the examples. Normal text is used for the explanations of the commands.

OUT-THINK's Screen Displays

There are three main parts to the OUT-THINK program:

- the Topic Manager
- the Outline Editor
- the Leaf Editor

Each part displays data on your computer's screen in its own unique format.

To start exploring these three main parts of OUT-THINK, make sure that the files HELP.TOP and DEMO.TOP (on your Working System Disk) are available on one of the drives that you specified for your drive search path when you installed OUT-THINK. See the READ ME FIRST booklet for details.

NOTE

If the file OT.COM is on some other drive besides drive A, use the drive spec (e.g., B:OT or C:OT) or change the default drive under the operating system. The default drive is reflected in the operating system prompt. The A> prompt means that drive A is the default. To change the default, type in the drive spec by itself on the operating system command line, e.g., the command:

A>B:

changes the default drive and the prompt to:

B>

Type in the OT command followed by the RETURN key at the operating system prompt to invoke the software:

A>OT return

When OUT-THINK is loaded and running, the screen is cleared and a sign-on like the following is displayed.

```
[ ] = = = = = [ ]
[ ]          WELCOME to the OUT-THINK (tm)          [ ]
[ ]          Outline Processing System                [ ]
[ ]          Copyright (C) 1985 by KAMASOFT, Inc.      [ ]
[ ]          All Rights Reserved Worldwide            [ ]
[ ]          Version 1.0   by Adam Trent              [ ]
[ ] = = = = = [ ]
```

==== Set Date, Old: 8508250307
New:

Just press RETURN at the prompt to keep the old date value for now.

Topic Manager Screen

The next thing that you see is the topic manager screen which is similar to the following:

===== TOPIC MANAGER (H for Help) =====

DRIVE	TOPIC NAME	LAST CHANGED	LOCK	SIZE	USED	
A:	HELP	85-08-25 23:37	0	44K	95%	+

The topic manager shows an information line for the first topic file that it finds. Two of the topic files that you copied from the master system disk are also available, and you can advance to see their entry. Your screen may be different from the one shown here depending on what order you copied the topic files and which drives you copied them to.

Press the spacebar to advance to the next topic.

===== TOPIC MANAGER (H for Help) =====

DRIVE	TOPIC NAME	LAST CHANGED	LOCK	SIZE	USED	
A:	HELP	85-08-25 23:37	0	44K	95%	+
A:	DEMO	85-10-23 16:46	0	16K	95%	-

From the topic manager, you can advance through all the topics available and perform global operations on topic files like creating, killing, resizing, and backing up topic files.

If you press the spacebar again when you are on the last topic found, you rotate back to the first topic; and the dashed line and header line are re-displayed. **Go ahead and press the spacebar over and over** to rotate through the entire topic list several times.

The HELP topic is a system topic that contains help messages and help screens. The DEMO topic contains sample outlines used in this chapter and the next.

You might notice the + sign at the end of the HELP topic line and the - sign at the end of the DEMO topic line. The + sign indicates that the topic is marked for searching; - indicates that it is not marked for searching. (OUT-THINK automatically marks the HELP topic for searching.) Whenever you try to find something, OUT-THINK searches only the marked topics. By marking and unmarking topics, you can control the scope of the search. But patience - more on this later.

Outline Editor Screen

Now, use the spacebar to advance to the DEMO topic and press the RETURN key.

The RETURN key is used to enter different modes of the OUT-THINK program. If the cursor is located on a topic entry in the topic manager and you press

RETURN, you enter that topic and can edit the outline in it using the outline editing commands. If you are on a specific title in the outline editor and you press RETURN, you enter the attached leaf and can edit the text in it using the leaf editing commands.

Your screen should now resemble the following:

- + DEMO
 - + Calendar
 - + Templates and Boilerplates
 - : Scratch Pad
 - * Project Plan — High Tech Line of Outdoor Gear

Each line on the outline editor screen shows one title in the outline. Indentation is used to indicate child titles subordinated under their parent. When you first enter the outline editor like this, the top title and the first level children are shown. The rest of the outline is collapsed. **Type B** to expand all the titles in this outline. The screen is now full with a title on every line:

- + DEMO
 - + Calendar
 - . Monday
 - . Tuesday
 - . Wednesday
 - : Thursday
 - . Friday
 - + Templates and Boilerplates
 - : Memos
 - + Org Chart
 - + Project Leader
 - . Development
 - . Testing
 - . Manufacturing
 - . Marketing
 - . Administrative
 - : Scratch Pad
 - * Project Plan — High Tech Line of Outdoor Gear
 - * Overview
 - * High Tech Hiking Boots — Space age materials and computer des
 - : Product Description
 - * Market Analysis
 - : More Market Analysis
 - : Schedule
 - : Staffing Requirements
 - * High Tech Backpack — Ultra-lite, ultra-strong materials.
 - : Product Description
 - : Market Analysis
 - : Schedule
 - : Staffing Requirements

In fact, there are more than 24 titles and they won't all fit on a single screen. **Type CTRL-C to scroll to the next screen and CTRL-R to scroll back to the previous screen.** (Type control characters like shifted characters; hold down the CTRL key while pressing the other key.)

Within a screen you can move the cursor to different titles, following the outline structure or ignoring it. Type the letter D to go down to the first child, U to go up to a parent, P to go previous on the same level, N to go next on the same level, CTRL-E to go backward, and CTRL-X to go forward.

Try typing all these combinations including the CTRL-C and CTRL-R to get the feel of moving the cursor around on the titles. If the cursor can't go in the direction you specify, the program beeps and the cursor stays on the same title.

You might have noticed that each title on the screen is preceded by a character (*, +, :, .) called a title character. Each title can have a text leaf attached to it and/or a branch of titles below it as descendents. Leafs and branches are not always visible on the screen, so the title character provides information about what's attached to the title:

- * indicates that the current stem has children and a leaf.
- + indicates that the current stem has children but no leaf.
- : indicates that the current stem has a leaf but no children.
- . indicates that the current stem has no leaf and no children.

Leaf Editor Screen

Now, move the outline cursor to the title "Overview" under "Project Plan" and press the RETURN key. The screen full of titles is cleared and replaced by the following text:

Great Outdoors! has a solid product line of outdoor gear. But that product line was developed in the late 1960's, and, even though, it has been improved through the seventies, it's outdated.

It's time now to start from-scratch and come up with something totally new.

We have on our staff or consulting research team, some of the greatest human engineering designers and materials scientists in the country. We have advanced technology in our computerized design system, which incorporates the latest in expert system software. And we have state-of-the-art manufacturing technology with our new robot controlled plant.

There is no reason why we cannot produce right now, the product line that will carry us into the 1990's and beyond.

That product line is the High Tech Line of Outdoor Gear. Starting with High Tech Hiking Boots and a High Tech Backpack, we can later introduce a High Tech Tent and a High Tech Sleeping Bag.

The following sections describe the first two products that we will produce.

This is the text leaf associated with the title "Overview". The cursor is blinking at the first character. In the leaf editor, you can move the cursor to different points in the text and enter new text or change the text that is currently in the leaf. If there is no leaf for a title, the screen is cleared and the cursor is left on the blank screen so you can enter and edit text for the new leaf.

To move the cursor, type CTRL-D to go forward, CTRL-S to go backward, CTRL-X to go down one line, and CTRL-E to go up one line. You can also use CTRL-C and CTRL-R to scroll to the next and previous screen like in the outline editor. **Try moving the cursor around now using combinations of these keys.** (Remember, type control characters like shifted characters by holding down the CTRL key while pressing the other character shown.)

You can even add some text if you want by typing in a sentence. The characters you type are inserted at the cursor.

When you are done, press the ESC key two times in a row (ESC ESC) to escape back to the outline editor. The bottom line of your screen is used for prompts and messages. **Type Y to the prompt “.... Abandon New Leaf?”** to abandon any changes you made. The screen is cleared and the outline titles reappear. The outline cursor is left on the title for the leaf you just edited.

Finishing the First Leg of the Tour

Now, press the ESC key followed by the T key (ESC T) to escape back to the Topic Manager. Just as in the Leaf Editor, the bottom line of the Outline Editor is used to display prompts and messages.

The screen is cleared again and, in the topic manager, the heading line and the information line for the first topic found are displayed.

This concludes the first leg of your guided tour through OUT-THINK's screen displays. You have visited each main mode of the program and gained familiarity with the screen formats used.

In the next part of the tour, you'll see how to get help when you need it, and, then, you can actually start entering commands.

Getting Help

No matter which part of the OUTTHINK program you are in, help is only a key or two away. In the **Topic Manager**, type the letter **H** to get the help screen of topic manager commands. Go ahead and try it now. The screen is cleared; all of the topic manager commands are listed; and you return to the topic manager on the first topic found:

TOPICMGR HELP — Options to control the Topic Manager

H	Show this Help Screen	SPBAR	Advance to Next Topic
P	Prepare New Topic	RETURN	Edit Current Topic
K	Kill Current Topic	F	Flash-Cards [Title,Leaf]
R	Resize Current Topic	D	Directory of Files
B	Backup/Copy Current Topic		
Q	Display Text in Topic	ESC	Show/Set Status
N	New Context (Change Disk)	ESC D	Set System Date/Time
C	List Marked Topics Context	ESC L	Lock Current Topic
T	Mark Topic for Searching	ESC P	Set Drive Search Path
-	Unmark Topic for Searching	ESC H	Set System Help Level
L	Lookup String (in Context)	ESC V	Set Keytree View Range
J	Jump to Edit Topic by Name	ESC O	Toggle Show of Owners
G	Go to Edit Topic (Show List)	ESC ESC	Escape OUTTHINK to DOS

- + Indicates Marked Topic
- Indicates Unmarked Topic

Now, advance again to the **DEMO** topic (by pressing the spacebar as needed). Press the **RETURN** key when you are on the **DEMO** topic to enter the outline editor. There are two help screens for the outline editor commands. Type **H** to get one of them and **ESC H** to get the other. Try typing **H** now. At the end of the command list, you get the prompt:

.... [Continue]?

Type **Y**, **SPBAR**, or **RETURN** to return to the outline editor.

There are two prompts that you will become familiar with as you use OUT-THINK: the “.... [Continue]?” prompt and the “.... [More]?” prompt.

When OUT-THINK displays more than one screen of text, it pauses at the end of each screen with a “.... [More]?” prompt to indicate that there is still more text to display. Then, at the end of the last screen that is displayed, OUT-THINK shows the “.... [Continue]?” prompt. There is no more text to display, but the last screen of text is retained until you type **Y** to continue. Like the “.... [Continue]?” prompt, type **Y**, **SPBAR**, or **RETURN** at the “.... [More]?” prompt to display the next screen of text. With both prompts, you can also type **N**, **CTRL-C**, or **ESC** to abort the operation in progress.

Next, try pressing the **ESC** key followed by **H** (**ESC H**). This shows the secondary Help screen for the Outline Editor. Again, press **Y**, **SPBAR**, or **RETURN** at the "... [Continue]?" prompt to return to the outline editor.

Go to the "Scratch Pad" title in the outline and press the **RETURN** key to edit its leaf. In the leaf editor, type **ESC H** to show the leaf editor commands. Press **Y**, **SPBAR**, or **RETURN** at the end of the list to return to the leaf editor.

Now, type **ESC ESC** to get back to the outline editor. If you have made changes in the leaf, you will get the "... Abandon New Leaf?" prompt. Type **Y** to abandon your changes and return to the outline editor.

Type **ESC T** to return to the topic manager from the outline editor.

All the help screens that you have just shown for the Topic Manager, Outline Editor, and Leaf Editor are printed on the reference cards in the OUT-THINK User's Guide.

Help Levels

Back in the topic manager now, press the **ESC** key. Notice that in the topic manager, the prompt and message line is shown after the last line displayed on the screen. This is not necessarily on the bottom line of the screen as it is in the outline editor and the leaf editor. Now, your screen contains the system status information and shows the information line for the topic you were on before pressing **ESC**:

```
==== SYSTEM STATUS ====
```

```
Date: 85-09-20 16:46      User:
```

```
Help Level: 3      View Up: 1      View Down: 1      Memory Free: 22549
```

```
DRIVES (in drive search order; first is default drive):
```

```
FOR DRIVE A:  1016K FREE
```

DRIVE	TOPIC NAME	LAST CHANGED	LOCK	SIZE	USED	
A:	DEMO	85-09-01 16:46	0	16K	95%	+

```
==== SET (Date,Lock-topic,Path,View,Help-level,Owners,ESCAPE):
```

Note that the help level, first item on the third line, is set to 3. Setting the help level allows you to control the amount of information displayed when you get an abend (i.e., an abnormal ending or error). Three is the maximum level. To practice changing the help level, type **H** at the **SET** prompt now. (In the topic manager, type **ESC H:ESC** to get the **SET** prompt and **H** to change the help level.) You can set the help level to 0 to turn off detailed information for abends or at 1, 2, or 3 to get various levels of detail. For practice, type **2** followed by the **RETURN** key at the prompt:

```
==== Help Level (0,1,2,3) = 2
```

One way to force an abend is to type **CTRL-C** (an operator caused abend). Try typing **CTRL-C** now to see the information provided at help level 2. Type **Y**, **SPBAR**, or **RETURN** to return to the Topic Manager.

Now, type **ESC H** again and this time, enter **0** (type **0** followed by the **RETURN** key) to turn off additional help. Type **CTRL-C** again to see the effect.

Next, set the help level to 1. Type **ESC H** and then enter **1**. Type **CTRL-C** again to experience a help level of 1.

We recommend that you leave the system wide help level set to 3 while you are learning, so type **ESC H** once more and enter **3** at the prompt to return the help level to 3. Type **CTRL-C** to generate an abend. At the help level of 3, you get a prompt asking you if you want more detailed help. Type **Y** to show the additional help or **N** to continue in the topic manager.

At a help level of 3, whenever an abend occurs, you get a message in the form:

???? ABEND: abend name — MORE HELP?

You can type **Y** to get more help or **N** to continue without the added help.

Recovering from Abnormal Conditions

OUT-THINK provides an error handling system to provide help when abnormal conditions are detected. An abend, short for abnormal ending, stops the currently executing command and displays a message that describes the condition detected. Then, depending on the help level set, further information about the abend can be displayed. There are four help levels in OUT-THINK. Initially, the help level is set to 3. However, you can easily change the help level in the topic manager with the **ESC H** option.

You have already tried setting help levels and seen the results of various settings. If you have the help level set at 2 or 3, you can get a detailed message that describes the cause of the error and possible steps you can take to recover from the error. These messages are also listed in Appendix A.

Appendix A also contains some commonly asked questions to further help you in troubleshooting and recovering from errors.

Entering Commands

Typing commands in OUT-THINK is easy. As you have already experienced by showing the help screens and setting the help level, all OUT-THINK commands are single key sequences, CTRL characters, or ESC sequences.

Single key commands are typed by pressing one or more single keys in sequence. You don't need to hit **RETURN** after single key commands in OUT-THINK.

However, some commands prompt you for additional parameters like filenames, help levels, and so on. To respond to these parameter prompts, type in the information requested followed by RETURN. In this manual, whenever you have to press the RETURN key we tell you to “enter” the information. When we say to “type” or “press” a key, you only press the single key without the RETURN key.

Control characters are typed by holding down the control key (usually labeled CTRL) while typing another key. For example, CTRL-E is typed by holding down the control key at the same as the E key. It is like typing a shifted character.

Escape sequences are typed by first typing the ESC key (usually labeled ESC), releasing it, and then typing the second key. For example, ESC H is typed by pressing the escape key and then pressing the H key.

Some commands in OUT-THINK have aliases and short cuts, i.e., other keys that duplicate the same function. For example, the ? key is the same as the H key for getting help. ESC ? is the same as ESC H to get the secondary help in the outline editor. Command aliases and short cuts are listed in Appendix D. If you find one of the aliases more convenient to use, feel free to use it instead of the main command.

Many OUT-THINK commands show a menu after you press the first key in the command sequence. As you have already seen, in the topic manager, the prompt and message line follows the last line displayed on the screen; in the outline editor and the leaf editor, the bottom line of the screen is used to display messages and menu prompts.

A menu prompt lists the command options available for selection. Type the first character of one of the commands shown to select that option. For example, to change the help level in the topic manager, you type the ESC key to get the SET menu prompt. One of the options available on the SET menu prompt is H to set the help level.

Cancelling Commands

When you are at a menu prompt and you press a character that is not one of the options shown, you can cancel the command that has been started. For example, the spacebar is not a valid option on any menu prompt. So if you are at a menu prompt, you can always press the spacebar to cancel the menu and return to the program.

Also, typing CTRL-C aborts whatever command you have typed as soon as the computer can safely stop the operation in progress. For example, if you are displaying your outline on the screen, typing CTRL-C immediately aborts the display command canceling it and returning to the OUT-THINK program. You can also abort a print command in this way.

The ESC key is an alias for CTRL-C in some cases. However, in other cases, ESC is a command itself and does not abort the current operation. For example, ESC is an option on the ESC menu in the topic manager. If you type ESC ESC, you can exit to the operating system. In the cases where ESC is actually a menu option, use CTRL-C to abort.

Exiting from OUT-THINK

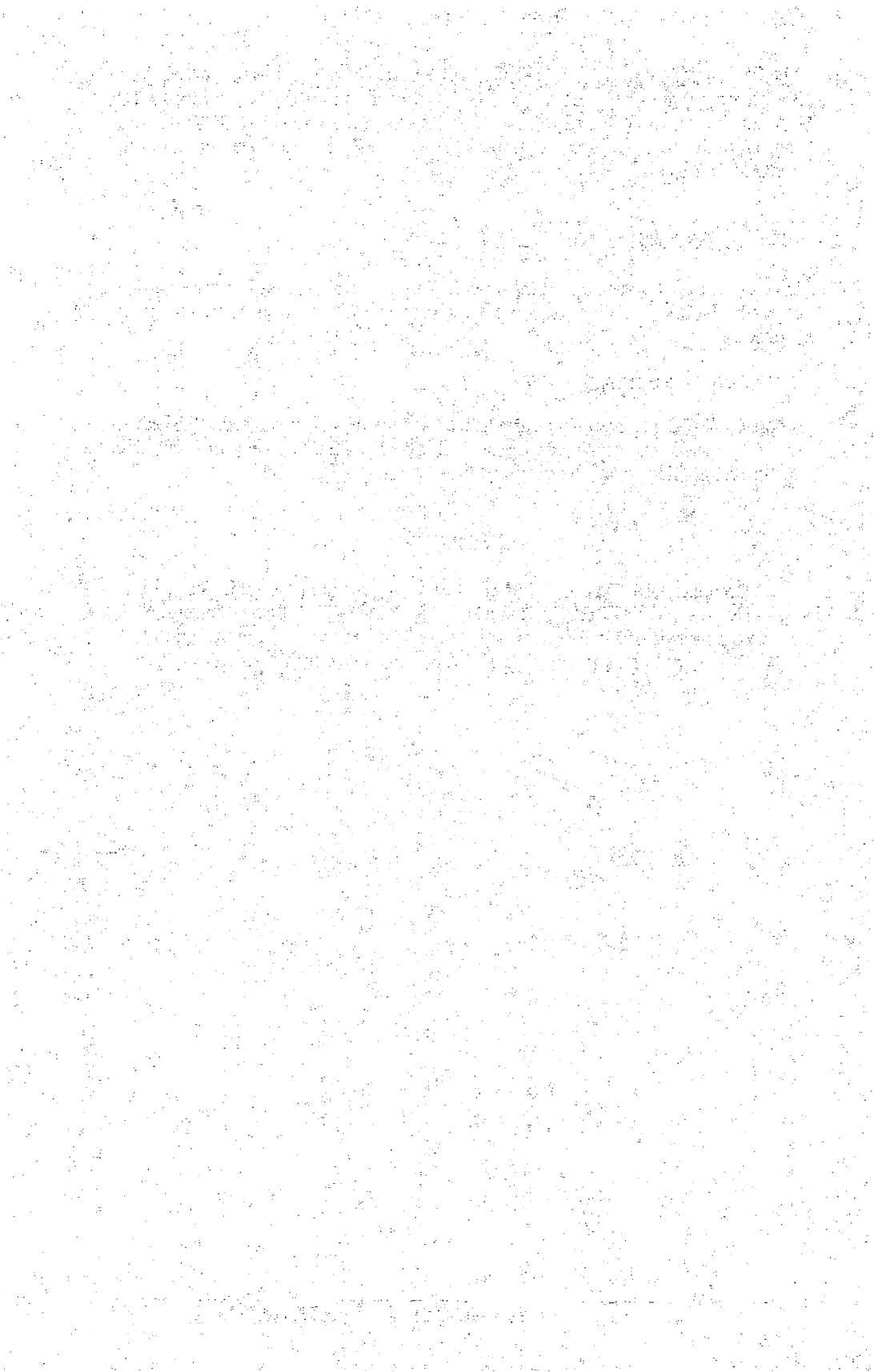
You can exit back to the operating system from the topic manager or the outline editor by **typing ESC ESC (two escape keys in a row)**. In either case, you get a prompt:

==== Exit to DOS, OK?

before OUT-THINK actually returns you to the operating system. **Type Y** to return to DOS. If you are working in the leaf editor, type ESC Q to exit and save the current leaf. Then, from the outline editor type ESC ESC to exit.

WARNING

Do not exit OUT-THINK in any other way than what is described here, i.e., by typing ESC ESC. **DO NOT** ever exit OUT-THINK by resetting or powering off your system. You can permanently damage your topic files by not using the appropriate OUT-THINK commands to exit.



Chapter 4

Getting Down to Serious Business

Now that you are familiar with the basics, it's time to actually do some work with OUT-THINK. The tutorial examples in this chapter are designed to give you some “real-life” experience with OUT-THINK so you can see how you might use an out-lining program. Along the way, you will also get practice using OUT-THINK and become more familiar with the way it works. (Note: Even if you are already familiar with KAMAS, we recommend that you follow these examples to help you learn OUT-THINK more quickly.)

You can follow along with most of the examples sitting at your computer. Before starting, be sure your computer is set up with your Working System Disk (You've installed OUT-THINK by now, haven't you? If not, follow the instructions in the READ ME FIRST booklet before proceeding). The examples make use of the DEMO topic (in the file DEMO.TOP) on your Working System Disk.

To make the examples more realistic, we have placed them in the context of a department manager for a company called “great outdoors!” (or go! for short) that makes outdoor gear — hiking boots, tents, backpacks, and so on. As the department manager, you will find some typical uses for OUT-THINK during the course of your day at the office.

If you are going to practice by doing the sessions in this chapter, you should do them in order. Each subsequent session depends on your having completed the previous one. Also, topic files that you create in earlier sessions are used in later ones.

Don't forget that we switch to **boldfaced** type to emphasize the instructions that you must follow to carry out the examples. Normal text is used to explain the commands in more detail.

Session 1 — Memos and Letters

In this session, you will write a memo and in the process, you'll:

- create a new topic
- discover ways to organize text and edit an outline
- use boilerplate text
- learn how to block copy and move text
- learn how to edit text
- print quick copies of short pieces of text

First, make sure your Working System Disk is available (i.e., the files OT.COM, HELP.TOP, and DEMO.TOP are in a drive that is in the search path). If you have a floppy disk system, make sure that you have formatted disks in all the drives that you designated for the drive search path when you installed OUT-THINK (i.e., none of the drive should be empty). If you designated a RAMDISK as part of the drive search path, make sure that it is available before running OUT-THINK. Also, be sure that your printer is hooked up properly, is powered on, and is online with paper and ribbons.

You also need the two formatted data disks you made when you installed OUT-THINK. See the READ ME FIRST booklet. The following sessions assume a floppy based computer with two drives A and B.

Insert your OUT-THINK Working System Disk into drive A. Insert an empty formatted data disk into drive B. (Note: use the empty disk that does not have the file HELP.TOP on it.) **Type CTRL-C** to "log-in" these newly inserted disks.

If you have a hard disk system, you can disregard any instructions in the following sessions to change disks. Just place all the files on one hard disk drive and, when instructed to create new files, direct them to that drive also.

To start OUT-THINK, **type**:

```
A>OT return
```

at the CP/M command line. After the sign-on message, you are prompted for the date:

```
==== Set Date, Old: 8508250307
      New: 860501
```

Type in the year, month, and date as shown and press RETURN. You don't have to enter a time; OUT-THINK appends zeroes for any part of the date that you don't enter. Later, OUT-THINK stamps the current date and time on individual stems each time you edit them and on topics when you create them.

If you assigned a printer init string when you installed OUT-THINK, you get the prompt:

```
==== Initialize Printer (Y,N)?
```

Type Y at this prompt to enter the Topic Manager. As you learned in earlier sessions, **press SPBAR to advance through the topics**:

```
==== TOPIC MANAGER (H for Help) ====
```

DRIVE	TOPIC NAME	LAST CHANGED	LOCK	SIZE	USED	
A:	HELP	85-08-25 23:37	0	44K	95%	+
A:	DEMO	85-10-23 16:46	0	16K	92%	-

There are only two topics available, the DEMO topic and a topic called HELP that contains system help screens and messages. (Note: the topics may be shown in a different order depending on the order you copied the files.)

Each column in the display gives you information about the current topic. The DRIVE is the disk drive where the topic file is located. The TOPIC NAME is the name of the topic. Topic names can be up to 31 characters including spaces. The “.TOP” extension is not shown. The LAST CHANGED is the date stamp applied by OUT-THINK when you last changed the topic. If you set the date at the start of each OUT-THINK session, the date shown will reflect the actual date you last modified the topic. Otherwise, the date initially provided with your system is used. The LOCK shows the security lock level of the topic. The SIZE is the maximum size in K bytes allocated for the topic. The USED column shows the percentage of the topic that has been used. By multiplying the SIZE by the percent USED, you can find out how much free space remains in your topic.

Checking the Calendar

The first thing you might want to do each morning is check your calendar for the day. **With the cursor resting on the DEMO topic, press the RETURN key to enter the outline editor.** Your screen appears as follows:

- + DEMO
 - + Calendar
 - + Templates and Boilerplates
 - : Scratch Pad
 - * Project Plan — High Tech Line of Outdoor Gear

NOTE

In actual use, each top level branch shown here (Calendar, Templates and Boilerplates, Scratch Pad, and Project Plan) could be a separate topic on its own. And the first three could be on the Working System Disk, if disk space is free, so they are always available.

The topic name is shown at the top and the first level of detail is expanded below. Recall from the last chapter that the title character (preceding each title) indicates whether there are further levels of detail below the title and whether the title has an attached leaf of text.

Type D to go down to the Calendar branch and **type X** to expand the branch and see its children:

- + DEMO
 - + Calendar
 - . Monday
 - . Tuesday
 - . Wednesday
 - : Thursday
 - . Friday
 - + Templates and Boilerplates
 - : Scratch Pad
 - * Project Plan — High Tech Line of Outdoor Gear

Type D again to go down to Monday and **then N three times** to go to Thursday. **Type Q** to see what's in the leaf. (You can also press the spacebar to show the leaf and go forward to the next title, both in the same step. Tapping the spacebar allows you to traverse through the outline, showing the stems as you go.) After typing Q, you see your calendar notes for today. If your today isn't Thursday — just pretend.

```
11:00  Department Meeting, Room 211 (Reorganization)
        Don't forget to prepare memo announcing Reorganization
        Also need new org charts
12:00  Department Lunch, Edna's Pizza
4:30   Meeting with Stan
7:00   Dinner with Angela
```

.... [Continue]?

The first thing you have to do today is prepare for the department meeting. You must compose a memo and do the new organization charts. **Type Y** to return to the outline editor so you can get to work.

Next, **type ESC T** to return to the topic manager.

Creating a New Topic

You decide to write the memo first. In the topic manager, you can create a new topic to hold memos and letters. **Type P** (it doesn't matter what topic the cursor is resting on) and you get the prompt:

```
==== New Topic Name:  B:CORRESPONDENCE
```

Enter the name as shown with the drive spec "B:" to force the topic to drive B (Note: if you have a hard disk or RAMDISK, you might need to direct the topic to a different drive). Next, you get the prompt for the file size:

```
          New Size (Kbytes): 16
==== PREPARING NEW TOPIC: 'CORRESPONDENCE' ====  ==== DONE ====
```


Type 16 and press RETURN for a 16K topic file. (In “real life”, you would probably make this larger, but for the purposes of the demo, we will keep it small.) When the topic has been created, you get the “DONE” message and are returned to the topic manager. **Advance through the list of topics by pressing the spacebar:**

==== TOPIC MANAGER (H for Help) ====

DRIVE	TOPIC NAME	LAST CHANGED	LOCK	SIZE	USED	
A:	HELP	85-08-25 23:37	0	44K	95%	+
A:	DEMO	85-10-23 16:46	0	16K	92%	+
B:	CORRESPONDENCE	86-05-01 00:00	0	16K	0%	+

Note that what used to be a — after the DEMO topic has now changed to a + and the newly created topic also has a + character at the end of the line. The — indicates that the topic is not available for searching; + indicates that the text in the topic is included during searches (like query and lookup). Later, you will see the significance of searching. **For now, advance to the CORRESPONDENCE topic and press the RETURN key** to edit the newly created topic.

Organizing Text — Inserting and Editing Titles

The screen is cleared and shows the line:

. CORRESPONDENCE

at the top. The “.” preceding the topic name indicates that there are no lower levels in the outline and the top title has no leaf. The topic name is always the top key in the outline.

The first thing you need to do is put some structure into the CORRESPONDENCE topic by inserting additional titles. The outline metaphor presents a flexible way to organize text. For example, you can organize your letters according to subject matter, date, or who you sent them to. Do you easily remember who you sent a memo to but you can never remember when? Then, organize by person. If you are more apt to remember the time when you sent the memo, then organize by date. For example, **type I**. You get a menu on the bottom line with the choices:

==== INSERT (Down,Next)

Type D to insert the first title down. (Note: when you are at the top item in a topic, you must insert down because there is only one unique top, i.e., the topic name.) You get the prompt:

= NEW KEY: JANUARY

at the bottom of the screen. **Type in JANUARY as shown followed by RETURN** and the screen is updated:

. CORRESPONDENCE
= . JANUARY

The “ = ” marks the location where you are inserting so you don’t lose track of where you are. The key can contain up to 31 characters and can include embedded spaces; but we don’t recommend that you type spaces at the end of the key. Spaces to separate the title and subtitle should appear at the beginning of the subtitle instead of the end of the key. OUT-THINK beeps if you try to enter more than 31 characters for a key. Next, you get the prompt:

= NEW SUBTITLE:

at the bottom of the screen. For this example, we won’t enter any subtitles. So **press RETURN** to complete the insert. The title character for CORRESPONDENCE is updated to a + sign to show that it now has one child subordinate to it. The child, JANUARY, is indented under CORRESPONDENCE; its level of indentation indicates its degree of subordination.

Next, turn off subtitle prompting for the remaining inserts by typing:

Y

Don’t press RETURN afterwards. The cursor should be at JANUARY. **Next, type I followed by N** to insert a title on the same level as JANUARY:

= NEW KEY: FEBRUARY

As soon as you press RETURN, the insert is completed since you toggled subtitles off (i.e., you are not prompted for a subtitle). **Type I followed by N to insert each of the months MARCH through DECEMBER.** When you are done, your screen appears as follows:

```
+ CORRESPONDENCE
. JANUARY
. FEBRUARY
. MARCH
. APRIL
. MAY
. JUNE
. JULY
. AUGUST
. SEPTEMER
. OCTOBER
. NOVEMBER
. DECEMBER
```

If you see any typos in the titles you entered, **go to the key with the error** (use N to go next and P to go previous). **Press the = key** to edit the title. At the prompt:

= NEW KEY: SEPTEMER

the old key is shown. **Type CTRL-D to move the cursor forward to the error (on the third E) and then type the correction (just type the letter B to insert it).**

= NEW KEY: SEPTEMBER

Press RETURN to enter the corrected value. Even though subtitle entry is toggled off, you still get the subtitle prompt during edit title, **so press RETURN again** to complete the edit. You can use the following commands when you edit the key or subtitle:

CTRL-S	Cursor Back (Left)
CTRL-D	Cursor Forward (Right)
CTRL-A	Cursor to Beginning of Item
CTRL-F	Cursor to End of Item
CTRL-G	Delete Cursor Character
DEL	Delete Previous Character
CTRL-Y	Delete to End of Item
CTRL-U	Undo All Changes
RETURN	Save New Edited Item and Exit
ESC	Escape Edit with no Changes

Other normal keys that you type are entered at the cursor location as text characters.

Go back to JANUARY. You can use CTRL-E to go back and CTRL-X to go forward instead of traversing the outline structure with P for previous, N for next, U for up, and D for down.

Now, the topic is organized by date. You might decide to add a second layer of structure and organize by subject matter as well. **Type ID** to insert down from JANUARY. A blank line opens up on the screen after JANUARY and you can enter the key at the = NEW KEY: prompt at the bottom of the screen. **Enter NEW PRODUCTS as the key:**

= NEW KEY: NEW PRODUCTS

Then, type IN to insert another subject next to NEW PRODUCTS. **This time, enter ANNOUNCEMENTS** as the subject.

Suppose instead that you wanted to classify by people. **Type U** to go up to JANUARY and **N** to go next to FEBRUARY. **Type ID** to insert down and **enter the name Marv Smith as the key.** **Type IN** to insert next and **enter Mary West as the key.** **Type IN again and enter Everyone as the key.** Now, you have a branch subdivided by subject and another subdivided by people:

- + CORRESPONDENCE
 - + JANUARY
 - . NEW PRODUCTS
 - . ANNOUNCEMENTS
 - + FEBRUARY
 - . Marv Smith
 - . Mary West
 - . Everyone
 - . MARCH
 - . APRIL
 - . MAY
 - . JUNE
 - . JULY
 - . AUGUST
 - . SEPTEMBER
 - . OCTOBER
 - . NOVEMBER
 - . DECEMBER

You can carry this even further and use another layer of classification if you need to. As you can see, the outline metaphor helps you use the divide and conquer method of solving the problem of information overload. It can get to be addictive and fun to watch as your ideas take shape.

Boilerplating Text

Now that you have explored various methods of organizing your letters, you need to get to work on the memo. **Go to the MAY key and type ID to insert down. Enter Reorganization as the key:**

= NEW KEY: Reorganization

You have a boilerplate leaf for memos (with the company logo) stored in the DEMO topic, and you want to copy it into the Reorganization leaf to get started. So you need to do a block copy of text. First, you go to the source for the copy. **Type ESC T** to return to the topic manager. **Advance to the DEMO topic and press return** to edit the outline. **Go to the “Templates and Boilerplates” title and type X** to expand its children:

- + DEMO
 - + Calendar
 - + Templates and Boilerplates
 - : Memos
 - + Org Chart
 - : Scratch Pad
 - * Project Plan — High Tech Line of Outdoor Gear

Go to the Memos stem and press RETURN to enter the leaf editor. In the leaf, you have the letterhead boilerplate for a memo.

Next, mark the block to be copied. **With the cursor at the very beginning of the leaf, type ESC M** to mark the start of a block of text. **Type CTRL-C** to scroll to the end of the leaf. **Then, type ESC C** to copy the entire leaf to the yank buffer. The yank buffer is a temporary holding area for text.

Next, go back to the destination. **Type ESC ESC** to exit the leaf (since you have not modified it, you don't need to save it). **Type ESC T** to return to the topic manager once again and **advance to the CORRESPONDENCE topic**. **Press RETURN** to edit the outline and **go back to the MAY stem**. **Type X** to expand and, then, **go to the Reorganization stem**. **Press RETURN** to edit the leaf.

Finally, **type CTRL-U** to insert the boilerplate from the yank buffer.

You have just done a block copy. You can also copy from one part of the leaf to another part of the same leaf or from one leaf to another in the same topic. Just mark the start of the block to be copied. Go to the end of the block and copy it to the yank buffer. Then, go to the destination and yank it back. Block copying is like the "cut and paste" technique that you might use with paper and scissors. The mark and copy is like the cut, and the yank back is like the paste.

Type CTRL-R twice to scroll back to the top of the leaf. **Type CTRL-Q** to search for the string "xxx". (There is also a CTRL-Z command to search and replace). **At the prompt, enter xxx as shown followed by a RETURN:**

==== Find what? xxx

The first placeholder is for the person/s you are sending the memo to. **Type CTRL-S** to move the cursor back to the first x and **type CTRL-Y** to erase the remainder of the line. **Now, type in "Entire Department" at the cursor**. You don't have to type RETURN at the end, since everything you type is automatically inserted. When you type a RETURN, it is inserted and starts a new blank line in the leaf. The "TO:" entry in your memo should look like this:

TO: Entire Department

Search again for xxx (CTRL-Q); this time you must enter your name. **Move the cursor back to the first x and wipe the remaining line (CTRL-Y).** **Type your name:**

FROM: The Boss

Repeat the search and this time enter the subject:

SUBJECT: Department Reorganization

One more time, repeat the search and enter the date:

DATE: May 1, 1986

OK. Now, you are ready to enter the memo.

Editing Text in a Leaf

Type CTRL-C to scroll to the end of the leaf. (Note: Don't forget that you can always get help in the leaf editor by typing ESC H to show all the command options. **Try typing ESC H now. Press Y at the "... [Continue]?" prompt to return to the leaf and continue editing.**)

At the end of the leaf, type in the following paragraphs. Text is automatically inserted as you type it. As you type in the text, the paragraphs appear on the screen. Notice that you don't have to enter the carriage returns at the end of each line. OUT-THINK automatically "word-wraps" the lines as you type continuously. The blank lines between paragraphs are entered by typing an extra RETURN.

As you all probably know by now, our group has been selected to design the new High Tech Line of outdoor gear for Great Outdoors. In light of our new task, I am reorganizing the department to get the greatest concentration of manpower on the most critical parts of the project.

Sharon Myers will be the project leader of the backpack team. Sharon was the team leader for the tents and sleeping bags on our Forest Ranger line. I'm sure we'll be able to use her extensive experience on this type of project.

Marty Jones will be the project leader for the hiking boots team. Marty is new to the team leader role but he has worked with Sharon on similar projects in the past. Let's do our best to help him keep us on track.

In a related development, I am sorry to announce that John Shepard will be leaving us in a few weeks to pursue his education full time during the summer months. John will be picking up a Master's degree at Local Tech and we're looking forward to his re-joining "go!" in the fall.

We also have a college student from Local Tech named Carol Evans. Carol will be joining us for the summer as part of the co-op program. With all of our new projects lined up, I'm sure Carol will have a busy summer.

After you enter the text, you notice that you misspelled John Shephard's last name. **Use CTRL-E to back up a few lines** to the line with his name on it (CTRL-X goes down to the next line; CTRL-R goes to the previous screen; and CTRL-C goes to the next screen.)

Use CTRL-S to move the cursor left and CTRL-D to move it right to line up on the "a" in "Shepard". (CTRL-A goes to the beginning of a line; CTRL-F goes to the end.) **When you get to the right point, type the letter "h" and it is automatically inserted before the cursor.**

Now, type ESC U to save the text you just entered into the leaf without exiting back to the outline editor. Saving text takes a few seconds while OUT-THINK indexes your text for fast retrieval later.

Moving Blocks

Next, suppose you decide to switch the last two paragraphs. This calls for a block move which is similar to the block copy that we did previously. **Go down to the first character of the first line of the last paragraph (the W in “We”) and type ESC M. Then, go to the very end of the last paragraph and type ESC W.** The entire last paragraph should disappear from your screen. It is moved to the yank buffer.

Next, go to the destination. **Move the cursor to the space after the comma on the line beginning “In a related development,”. Type CTRL-U** to insert the text from the yank buffer. **Move the cursor back up to the first character after the first comma and type a space. With the cursor on the “W” of “We” type CTRL-G** to delete the character. **Re-type a lower case “w”.** (CTRL-T deletes the next word; CTRL-Y deletes a line; and DEL deletes the previous character.)

Depending on how you originally typed in the paragraphs, you may need to insert a new blank line to separate the two paragraphs about Carol Evans and John Shephard. If so, go to the I of “I am sorry” and type the RETURN key to insert the blank line.

Reformatting Paragraphs

So far so good except that now the last two paragraphs have short lines mixed in with long lines. **With the cursor anywhere in the paragraph about Carol Evans, type CTRL-B** to reform the paragraph with consistent line lengths. **Go down to the paragraph about John Shephard and do the same thing.** Your last two paragraphs should look like this now:

In a related development, we also have a college student from Local Tech named Carol Evans. Carol will be joining us for the summer as part of the co-op program. With all of our new projects lined up, I'm sure Carol will have a busy summer.

I am sorry to announce that John Shephard will be leaving us in a few weeks to pursue his education full time during the summer months. John will be picking up a master's degree at Local Tech and we're looking forward to his re-joining “go!” in the fall.

Showing the Old Version

Now, the paragraphs are switched, but you might want to see what they were like before you changed them. **Type ESC S L** to show the old leaf that was previously saved. **Press Y at the “.... [More]?” prompt** to see the whole leaf.

At the “.... [Continue]?” prompt type Y to return to the current leaf. In this way, you can switch back and forth between the two versions and compare them. By switching back and forth, you can decide which version you like best. It is possible to abandon the new leaf and restore the old one if you prefer.

In this session, let's assume you prefer the new version, so stay in the leaf editor for now.

Printing a Quick Copy

You have finished the memo and you need to get a printed copy. You can do this quickly from inside the leaf editor with the ESC P command. **Make sure your printer is connected and online. Type ESC P.** The format parameter menu is shown. Format parameters control the way your outline is printed or written to a file. The menu is shown before any print command allowing you to set the values before commencing to print. The format parameters are covered in greater detail later in session 4. For now, you only have to change one parameter.

The ESC P command in the leaf editor is one of the simplest ways to print an outline and it only obeys a few of the format parameters. The only parameter you need to change is the left margin. Make sure this value is set to 0 especially if your printer is set for 10 pitch type. Otherwise, the memo will not print properly. To set the left margin to 0, **type B at the prompt:**

==== Type Letter of Item to Change; RETURN for No Change: B

Then, enter the value 0 at the next prompt:

B Left Margin: 4 New = 0

The format parameters are re-displayed; this time the left margin should show a value of 0. **Press the RETURN key at the prompt** to make no further changes.

The entire memo should print out. This quick print only outputs the leaf text. It does not do any formatting. However, it does obey the current left margin setting. You'll experiment with formatted printing later.

After the leaf is done printing, type ESC Q to save the leaf and exit back to the outline editor.

Summary

In this session, you have created a topic for your correspondence and written a memo about your department reorganization. In the process, you have seen ways to organize text and you have experienced the value of using an outline processor in a professional context. You also did a block move and block copy and learned some of the leaf editor commands and how to print quick copies of a leaf.

As a final exercise, you might want to edit the memo leaf again and try some of the other leaf editing commands like the ESC S P which shows you how full the current leaf is.

Other ESC S commands (ESC S K, ESC S V, ESC S F, and ESC S T) show you the outline that you are editing so you can keep track of where you are as you are editing the current leaf.

Try entering text anywhere in the memo. Also, if you prefer, you can turn off the automatic insert mode (use CTRL-V). Then, whatever you type overwrites the existing text. In some word processors, this is called overstrike mode.

Try out these commands and then exit with ESC ESC to abandon any changes you might have made while experimenting with the leaf editor.

You can now exit OUT-THINK and return to CP/M or continue with session 2. To exit, type **ESC ESC** while you are in the **Outline Editor** and answer **Y** to the prompt:

==== Exit to DOS, OK? y

Session 2 — Organization Chart

You have finished the memo for your department meeting, and now you need to get started on the new organization chart. If you have exited back to CP/M, then start OUT-THINK again the same way that you did at the beginning of session 1 (**enter the OT command at the CP/M prompt**), and enter the topic manager.

If you did not exit from OUT-THINK at the end of session 1, then return to the topic manager by typing ESC T in the outline editor.

In this session, you will create an organization chart and in the process:

- use an outline template
- search through a set of outlines using the rapid information retrieval commands
- copy and move portions of outlines
- delete titles
- promote and demote titles, changing the outline structure
- see how outlines can help you organize text and stay in touch with the big picture
- print titles

First, create a new topic to hold the organization chart. **In the topic manager, type P** to prepare the topic.

```
===== New Topic Name: B:ORGANIZATION CHART
```

Enter the name as shown with the drive spec “B:” to force the topic to drive B (Note: if you have a hard disk or RAMDISK, you might need to direct the topic to a different drive). Next, you get the prompt for the file size:

```
      New Size (Kbytes): 16
===== PREPARING NEW TOPIC: 'ORGANIZATION CHART' ===== DONE =====
```

Type 16 and press RETURN for a 16K topic file. (In “real life”, you would probably make this larger, but for the purposes of the demo, we will keep it small.) When the topic has been created, you get the “DONE” message and return to the topic manager. **Advance through the list of topics by pressing the spacebar:**

```
===== TOPIC MANAGER (H for Help) =====
```

DRIVE	TOPIC NAME	LAST CHANGED	LOCK	SIZE	USED	
A:	HELP	85-08-25 23:37	0	44K	95%	+
A:	DEMO	85-10-23 16:46	0	16K	92%	+
B:	CORRESPONDENCE	86-05-01 00:00	0	16K	26%	+
B:	ORGANIZATION CHART	86-05-01 00:00	0	16K	0%	+

If any of the topics listed have — signs instead of + signs **advance through again by pressing the T key instead of the spacebar**. As the T key advances through the topics like spacebar, it marks each topic for searching (indicated by the plus sign).

Looking Up Keys

Next, edit the topic you just created (advance to **ORGANIZATION CHART** and press **RETURN**). The topic name is the only title so far:

```
. ORGANIZATION CHART
```

You have a template for an org chart in the **DEMO** topic, and you need to copy the template into your new topic. In the last session, you saw how to copy boilerplate text from one leaf to another (between or within topics). In this session, you will learn how to copy a title template. In some ways, the operations are similar. You go to the source topic and mark the branch to be copied. Then, go to the destination and type the copy command.

Since the source is in a different topic from the destination, you have to switch topics. In the last session, you did this by returning to the topic manager and editing a different topic. This time, use the **L** command.

The **L** command in the outline editor is another way to conveniently switch topics. The **L** command searches all the marked topics for the string you specify and lets you go to the stem containing that string, even if the stem is in a different topic. This method bypasses going through the topic manager to switch topics. **Type the L key** and the screen is cleared to display the prompt:

```
==== Lookup What? dino
==== SEARCHING FOR KEY: 'dino' ====
```

Type in the string as shown, followed by RETURN. The first phase of the lookup command searches through keys to find any key that sounds like the one you entered. You don't have to spell the key correctly since a phonetic method is used to find matches. In this case, "dino" is a typo for "demo". The key search phase is very rapid; it only takes about one second per topic to find a candidate — no matter how big the topic is. For each topic that is searched, the topic name is shown:

```
.... SEARCHING TOPIC: DEMO
```

Any time a potentially matching key is found, the title is shown and a prompt is displayed:

```
DEMO
==== Candidate (Yes,No,Focus)? y
```

You can accept the candidate, reject it, or show a focus (the ancestry of the key) to determine if it is the one you are looking for. (The focus shows the parent, grandparent, great grandparent, and so on from the top of the topic down to the candidate.) Note that you don't have to confine your search to the topic name as you did here; you can search for any key in the topic. But, since the topic name is used as the top key in the topic, specifying a topic name is a convenient way to switch topics.

If you don't accept any of the candidate keys, the lookup command goes into a second phase — a more extensive search for an exact match on the text string anywhere in any marked topic (i.e., in the key, subtitle, or leaf). During the second phase, the string can be in the leaf, the subtitle, or only part of the key. In the first phase, the string can be a sound-alike match, but it has to sound like the whole key, not just part of it.

In addition to switching topics with the Lookup command, you can also use it to quickly move your outline cursor to another location in the same topic. You can lookup a string in the same topic you are editing and move your cursor quickly to that location. Another search command, the Find command is available in the outline editor to quickly move your cursor to a title containing the specified string. The Find command only searches the expanded portions of the outline you are currently editing, and it limits its search to the expanded titles; leafs are not searched.

Type “y” as shown to accept the DEMO candidate.

Copying Templates

You return to the outline editor but now you are editing the DEMO topic. **Go to the Templates and Boilerplates title by typing CTRL-X. Type the letter B** to expand the entire Templates and Boilerplates branch. Your screen should appear as follows:

```
+ DEMO
+ Calendar
+ Templates and Boilerplates
  : Memos
  + Org Chart
    + Project Leader
      . Development
      . Testing
      . Manufacturing
      . Marketing
      . Administrative
    : Scratch Pad
    * Project Plan — High Tech Line of Outdoor Gear
```

The next step is to mark the template branch that you want to copy. Just as in copying text from a leaf, you have to mark the source material. In OUT-THINK, there are a number of marked title operations: copying, printing, deleting, and writing to a file. For all four operations, the same commands are used to mark the source titles. The TAB key and T key can be used to mark stems; T marks individual stems while TAB marks branches. The — command is used to unmark them.

Move the cursor down to Project Leader and press the TAB key to mark the branch. A — character appears before the top title in the branch that is marked.

Next, return to the org chart topic. So far you have tried two ways to switch topics: the L command and going through the topic manager. There are still two other ways available. One of these, the Jump command, lets you specify the topic you want to switch to. Unlike the L command, you have to spell the topic name exactly. The other, the Go command, lists the topics available and then lets you type in the name of the one you want to switch to. Again, you have to spell the topic name exactly. This time, try the Go command. **Type G** to get the list of topics.

```

===== TOPIC LIST =====
DRIVE  TOPIC NAME          LAST CHANGED  LOCK  SIZE  USED
A:     HELP              85-08-25 23:37  0    44K  95%   +
A:     DEMO              85-10-23 16:46  0    16K  92%   <--
B:     CORRESPONDENCE    86-05-01 00:00  0    16K  26%   +
B:     ORGANIZATION CHART 86-05-01 00:00  0    16K  0%    +
===== To What Topic: ORGANIZATION CHART

```

Be sure to type the name (ORGANIZATION CHART) exactly and follow it with a RETURN. (Note: the G command is a good way to quickly get information about your topics without going through the topic manager. After you get the information you need from the list, you can just press the RETURN key to go back to the outline editor in the same topic with everything expanded just as you left it.) You should now see the ORGANIZATION CHART outline with the cursor on the top title.

Type ESC C and you get the prompt:

```

===== ESC COPY (Down,Next,Extract,Marked)

```

at the bottom of the screen. **Type D** to copy the previously marked branch (Project Leader) down one level from the top in the current outline. OUT-THINK displays status messages while it is copying and indexing the stems. The entire branch is copied, including leafs if there are any attached to the titles.

The N option copies the marked branch next on the same level. E and M operate a little differently; for both of them, you stay in the source topic and specify the name of the destination topic. E creates a new topic and extracts the current branch to the newly created topic. M copies all marked stems to a single branch in the destination topic.

With all the marked operations (copy, delete, print, or write to a file), you should mark the source and then immediately perform the operation without doing a lot of intervening commands. Some intervening operations clear the marked titles. For example, when copying between two topics, as is the case here, if you mark a title after you go to the destination, OUT-THINK will no longer recall the previously marked source title in the other topic.

When you return to the outline editor, your screen should look like the following:

```

+ ORGANIZATION CHART
+   Project Leader

```

Go to the Project Leader title (CTRL-X), and mark it (TAB). Type ESC C and then type N to make another copy of the template next to the first copy. Repeat this a few more times so that you end up with five copies. Don't forget to use TAB to mark the source branch before copying next.

```
+ ORGANIZATION CHART
+ Project Leader
+ Project Leader
+ Project Leader
+ Project Leader
+ Project Leader
```

Now, you have created a skeleton outline from the org chart template and you can begin filling in the details.

Collapsing and Expanding

Go to the top of the outline (type U until the cursor is on ORGANIZATION CHART. Type B to expand the entire branch; in this case, since the branch is the entire topic, you will expand all the outline. The expanded titles fill up more than your 24 line screen. You could have hundreds of titles expanded and still scroll through them by typing CTRL-C to scroll forward and CTRL-R to scroll backward.

Try this a few times to move the cursor through all the titles. Go to one of the "Project Leader" titles and type C to collapse its children off the screen.

Collapsing and expanding the titles in the outline are two of the ways that an outline processor gives you a boost over a normal text editor. By collapsing the titles at a lower level of detail off the screen, you are free to group your ideas, deal with the group as a unit, and ignore the lower levels of detail. Collapsing offers the same powerful mental leverage that abstraction provides. You can narrow your focus to consider a few items and then widen it back out when you expand.

As an additional boost to hiding details, OUT-THINK hides the detailed text leaf until you need to see it. Only the titles are displayed in the outline editor. You can edit the leaf to see the lower level details or you can scroll through the leaf text by pressing the spacebar when you are on each title.

Hoisting and De-hoisting

Hoisting and de-hoisting are another two operations that allow you to narrow your focus and hide details. **Go to one of the "Project Leader" titles and type E.** The following prompt appears at the bottom of your screen:

```
==== EDIT (Title,Leaf,Branch)
```

Type B to edit the branch. You remain in the outline editor on the same topic, but the title you were on is now hoisted to the top of the outline. The top title in the outline editor is no longer the top title of the topic. You are able to edit a branch as if it were the entire topic:

- + Project Leader
 - . Development
 - . Testing
 - . Manufacturing
 - . Marketing
 - . Administrative

While the branch is hoisted, you may need to view the whole topic and remind yourself where the hoisted branch fits in. The ESC S commands in the outline editor allow you to view the outline from several different perspectives. Even if you have not hoisted any branches, you will find the ESC S commands useful. The ESC S F command shows the focus (ancestry) of a stem; the parent, grandparent, great grandparent, and so on to the top of the topic are displayed. The ESC S T shows the descendents of a title; while ESC S K shows the descendent keys. ESC S V shows a view of the surrounding neighborhood of keys.

Go to the Administrative title and type ESC S to show the prompt:

==== ESC SHOW (View,Focus,Keys,Titles,Branch)

Type F to show the focus. Note that the top title of the outline appears even though a branch is hoisted in the outline editor. **Type Y** at the “.... [Continue]?” prompt.

Now, go up to Project Leader and type R to re-edit at the top title of the topic and de-hoist the branch.

All these operations (collapsing and expanding, hoisting and de-hoisting, hiding leaf text, and showing the outline from different perspectives) help you to consider parts of an outline for further development of your ideas. You may decide to subdivide an item or combine two related items under a third title. In any case, you are taking advantage of the added power that an outline processor can provide.

Moving Titles

Go to the top title if you are not already there. **Type the = key** to edit the title. The key is shown at the bottom line on your screen:

= NEW KEY: ORGANIZATION CHART

To change the topic name, you edit the top key in the topic. For example, **type CTRL-D to move the cursor to the right. Stop when you get to the A in ORGANIZATION. Now, type CTRL-G to delete each character to the end of the word so that you have:**

= NEW KEY: ORG CHART

If you don't want to make any change to a title, press the ESC key to cancel and retain the old value. In this example case, **type RETURN** to accept the change. Next, you can add a subtitle at the prompt:

= NEW SUBTITLE: High Tech Gear Department

Type in the subtitle as shown and press RETURN. Notice that the key and subtitle are now run together. In some cases, you may want them this way, but here you want a space. **Type the = key again and press RETURN** to skip over changing the key. **Now type space, dash, space** to insert these characters at the start of the subtitle:

= NEW SUBTITLE: — High Tech Gear Department

And then press RETURN to enter the new subtitle.

We suggest that you put the separator characters at the beginning of the subtitle instead of at the end of the key, especially for the top title.

Next, insert some names into the outline. **At the top key, type I D** to insert the first name down from the top. **Enter your name:**

= NEW KEY: The Boss

Press RETURN to skip the subtitle for now. (You can continue to press RETURN at the subtitle prompts or you can toggle off the entry of subtitles by typing Y.)

After you enter the first name, type I D again to insert the next name down from yours. **Enter the name Carol Evans.** Then, use **I N** to insert the rest of the names next to Carol Evans. **Insert each of the following names:**

Joanna Brown
Ty Powell
Martha Norton
Bill Smith
Jerry Heide
Annie Westbrook
Cathy Brooks
Jim Jackson
Mike Atkinson

The outline appears as follows:

- + ORG CHART — High Tech Gear Department
 - + The Boss
 - . Carol Evans
 - . Joanna Brown
 - . Ty Powell
 - . Martha Norton
 - . Bill Smith
 - . Jerry Heide
 - . Annie Westbrook
 - . Cathy Brooks
 - . Jim Jackson
 - . Mike Atkinson
 - + Project Leader
 - + Project Leader
 - + Project Leader
 - + Project Leader
 - + Project Leader

Next, enter the two project leaders. **Go to the first Project Leader and edit the title (type =). Hit return at the new key prompt and enter the following subtitle:**

= NEW SUBTITLE: — Sharon Myers, High Tech Backpack

Go to the second Project Leader and edit the title. Enter the following subtitle:

= NEW SUBTITLE: — Marty Jones, High Tech Hiking Boots

Expand the branch (type X). Go previous to the first Project Leader again (type P) and expand the branch (type X):

- + ORG CHART — High Tech Gear Department
 - + The Boss
 - . Carol Evans
 - . Joanna Brown
 - . Ty Powell
 - . Martha Norton
 - . Bill Smith
 - . Jerry Heide
 - . Annie Westbrook
 - . Cathy Brooks
 - . Jim Jackson
 - . Mike Atkinson
 - + Project Leader — Sharon Myers, High Tech Backpack
 - . Development
 - . Testing
 - . Manufacturing
 - . Marketing
 - . Administrative
 - + Project Leader — Marty Jones, High Tech Hiking Boots
 - . Development
 - . Testing
 - . Manufacturing
 - . Marketing
 - . Administrative

Next, mark the branch containing the names by going to your name (shown here as The Boss) and typing the TAB key to mark the branch. The dash character appears before your name to indicate that the branch is marked.

Now, go to the first Project Leader title (Sharon Myers) and type M to move all the marked titles into the first project team. At the move prompt, type D to move them down into the Sharon Myers branch.

==== MOVE (Left,Right,Down,Next) D

The move command does not have to write and index the marked stems; it only updates a few pointers, so it is much faster than a copy. In fact, you can move megabytes of text in seconds with OUT-THINK. The screen is updated to show that the names have been moved.

Next, go up to the Project Leader title and hoist the branch by typing E B. This gets rid of a lot of the clutter on the screen and lets you concentrate on the Sharon Myers project team for now. Expand your branch by going to The Boss and typing X.

```
+ Project Leader — Sharon Myers, High Tech Backpack
+ The Boss
. Carol Evans
. Joanna Brown
. Ty Powell
. Martha Norton
. Bill Smith
. Jerry Heide
. Annie Westbrook
. Cathy Brooks
. Jim Jackson
. Mike Atkinson
. Development
. Testing
. Manufacturing
. Marketing
. Administrative
```

Go to Joanna Brown and type T to mark the single title. Go to Administrative and type M D to move the marked title down. Edit the title (type =), type RETURN at the “NEW KEY:” prompt, and enter the following subtitle:

= NEW SUBTITLE: — Part Time

Move Carol Evans down from, i.e., subordinate to, Development. To do this, **go to the Carol Evans title; mark the title; go to Development; and type M D. Edit the title and enter a subtitle of “ — Part Time” as you did for Joanna Brown.**

Now, go to Ty Powell; type T to mark the title; go to Development; and type M D to move down. Similarly, move Cathy Brooks under Testing; Jerry Heide under Manufacturing; and Martha Norton under Marketing. The outline is automatically updated on your screen after each move. At the end, it looks like this:

- + Project Leader — Sharon Myers, High Tech Backpack
 - + The Boss
 - . Bill Smith
 - . Annie Westbrook
 - . Jim Jackson
 - . Mike Atkinson
 - + Development
 - . Ty Powell
 - . Carol Evans — Part Time
 - + Testing
 - . Cathy Brooks
 - + Manufacturing
 - . Jerry Heide
 - + Marketing
 - . Martha Norton
 - + Administrative
 - . Joanna Brown — Part Time

And the cursor is on Martha Norton, the last title you moved. Note that title characters are automatically updated to reflect their new status as parents.

Next, de-hoist the branch (go to **Project Leader** and type **R**) and then mark your name (**The Boss**) by going there and pressing the **TAB** key. Go down to the second **Project Leader (Marty Jones)** and type **M D** to move the remaining department members into that branch. Go up to the **Project Leader (Marty Jones)** title and hoist this branch (type **E B**). Then, go to **The Boss** and type **X** to expand. The outline looks like this:

- + Project Leader — Marty Jones, High Tech Hiking Boots
 - + The Boss
 - . Bill Smith
 - . Annie Westbrook
 - . Jim Jackson
 - . Mike Atkinson
 - . Development
 - . Testing
 - . Manufacturing
 - . Marketing
 - . Administrative

Move Bill Smith down below Marketing. Move Annie Westbrook down below Development. Move Jim Jackson down below Testing. Move Mike Atkinson down below Manufacturing. For each move, go to the source title and mark it by typing T. Then, go to the destination and type M D to move it down.

The outline looks like this:

- + Project Leader — Marty Jones, High Tech Hiking Boots
 - . The Boss
- + Development
 - . Annie Westbrook
- + Testing
 - . Jim Jackson
- + Manufacturing
 - . Mike Atkinson
- + Marketing
 - . Bill Smith
- . Administrative

Your work is almost complete now. De-hoist the branch (**go up to Project Leader and type R**).

Go to the Carol Evans title in the backpack project team. You might have to expand the entire branch to reveal the title on the screen. **Mark the Carol Evans title. Go to the Annie Westbrook key.** Again, you will need to expand the entire Marty Jones branch to reveal Annie who is hiding there (under Development). **When you get to Annie, type ESC C N** to copy the Carol Evans title. Note that the subtitle is copied along with the key. The leaf (if it exists) is copied as well.

Next, you want to go to the Joanna Brown title and copy her title down into the Administrative Branch in the hiking boots team.

You may find the game of hide and seek (i.e., collapsing and expanding) to find Joanna Brown a bit indirect. But there is a whiz-bang way to get there directly. **Try the Lookup command (L).** You used this command earlier in the Demo Session. **After you find Joanna, mark her title; go to the Administrative branch (under Marty Jones); and Copy Down (ESC C D).**

Now, you notice that you made three extra Project Leader templates that you don't need.

So, go to those remaining Project Leader branches that have not been assigned and delete them. To do this, **go to each of the last three Project Leader titles (one at a time) and press the DEL key on your keyboard. At the prompt, type B** to delete the branch:

```
==== DELETE (Stem,Branch,Marked)
```

Deleting a branch is an irreversible operation, so you get a warning prompt:

```
==== Delete Entire Branch, OK? Y
```

Make sure you are on one of the Project Leader titles that was not assigned and type Y as shown. If you are on one of the Project Leader titles that you just entered names into, type N to cancel the delete.

Next, you recall that you left your own name under the Hiking Boots project team (Marty Jones). **Go to the top (type U until you get there) and type B** to expand all the remaining topic. **Go to your name (The Boss) and mark it by typing T**. **Go to the top and then type M D** to move your own name down from the top. The fully expanded outline now appears as follows:

- + ORG CHART — High Tech Gear Department
 - . The Boss
 - + Project Leader — Sharon Myers, High Tech Backpack
 - . Development
 - . Ty Powell
 - . Carol Evans — Part Time
 - + Testing
 - . Cathy Brooks
 - + Manufacturing
 - . Jerry Heide
 - + Marketing
 - . Martha Norton
 - + Administrative
 - . Joanna Brown — Part Time
 - + Project Leader — Marty Jones, High Tech Hiking Boots
 - . Development
 - . Annie Westbrook
 - . Carol Evans — Part Time
 - + Testing
 - . Jim Jackson
 - + Manufacturing
 - . Mike Atkinson
 - + Marketing
 - . Bill Smith
 - + Administrative
 - . Joanna Brown — Part Time

Promoting and Demoting

The last thing you need to do is position the two project team branches under your own name. Lowering a title or branch by one level is called demoting it while the inverse (promoting) raises a title or branch by one level. Use the move commands to promote and demote.

Go up to the top title and type C to collapse the entire outline. **Then, type X** to expand just one level:

- + ORG CHART — High Tech Gear Department
 - . The Boss
 - + Project Leader — Sharon Myers, High Tech Backpack
 - + Project Leader — Marty Jones, High Tech Hiking Boots

Now, all the subordinate titles are cleared from the screen, yet the + signs indicate that the lower levels still exist in the topic file. **Go to the first Project Leader branch and mark it (press the TAB key). Go to your own name and type M D** to move the entire branch down from you.

- + ORG CHART — High Tech Gear Department
 - + The Boss
 - + Project Leader — Sharon Myers, High Tech Backpack
 - + Project Leader — Marty Jones, High Tech Hiking Boots

Note that even though the subordinate levels are collapsed from view, they too are demoted. **Now, mark the other Project Leader branch (Marty Jones) and go to the Sharon Myers Project Leader branch. Type M N** to move the entire marked branch next on the same level, thereby demoting it a level.

OUT-THINK also has two commands to demote and promote individual stems; M L moves a stem left promoting it while M R moves a stem right demoting it.

All the commands that edit the hierarchical structure preserve the logic of the outline. Operations that would violate the structure are not allowed. For example, moving right (demoting) the first child on a level would create a gap in the outline and is not allowed. Promoting a stem without promoting its children below would similarly create a gap and is not allowed. Also, the top of a topic is unique; and there can be only one top in a topic. Any operation that would create more than one top, is not allowed, i.e., promoting the immediate children of the top, demoting the top, inserting next to the top, or deleting the top. If you want to kill a topic, do so with the K command in the topic manager.

Printing the Outline

Finally, you are ready to print the org chart. OUT-THINK has a number of print options. But for this example, you can simply use most of the default parameters and print only the titles since none of the stems contain leafs.

Go to the top title (type U to go up if you are not already at the top). Then, make sure your printer is properly connected, online, and powered on. Type ESC P to print. The prompt:

```
==== ESC PRINT (Keys,Titles,Branch,Outline,Marked,Query)
```

is displayed at the bottom of the screen. **Type T** to select the print titles option. The screen is cleared and the format parameters are displayed. You don't need to setup too many parameters to print titles. You don't need headers and footers, page numbers, section numbers, or a table of contents. The default values shown can be used.

```

===== FORMAT PARAMETERS =====
A # Lines Per Page: 66
B Left Margin: 4
C Right Margin: 72
D Line Spacing: 1
E Indent Size: 2
F Section # Depth: 3
G Table of Contents Depth: 3
H Output Depth: 16
I Use Expanded Outline? NO
J Stop Before Page? NO
K # Copies: 1
L WordStar Output? NO
M Headers & Footers? YES
N Rotate Headers & Footers? NO
O Title in Header? NO
P Header: ORG CHART
Q Date in Footer? YES
R Footer:
S Page # in Header? YES
T Page # in Footer? YES
U Page # Prefix: Page
V Starting Page #: 1
===== Type Letter of Item to Change; RETURN for No Change:

```

If you have not exited since the last session, you will need to reset the left margin to 4. To do this, **type B at the prompt. Then, at the next prompt, enter the value 4:**

```

B Left Margin: 0 New = 4

```

You may decide at this point that you don't want section numbers on your org chart. To get rid of section numbers, change the section number depth parameter to 0. **Type F to change the Section Number Depth. At the prompt:**

```

F Section # Depth: 3 New = 0

```

enter the digit zero (0) to turn off section numbers.

Likewise, you may decide that you don't want any headers and footers. So, **type M to turn off Headers & Footers. At the prompt:**

```

M Headers & Footers? YES New = N

```

type the letter N to turn them off. On all the parameters that are questions (e.g., Headers & Footers?), you enter a new value by simply pressing the single character Y for Yes or N for No. When the parameters are re-displayed, **press the RETURN key** for no further changes. **At the next prompt:**

```

===== Preview First? Y

```

type Y as shown to display the titles on the screen first before you print them. The preview option allows you to do a trial run of the printed output to your screen. Then, you can check to see if it looks like what you want before you actually print.

After the titles are shown, type **Y** at the “... [Continue]?” prompt to return to the outline editor. Type **ESC P T** again to print titles. This time, you don’t need to change the format parameters (they retain any new values you set until you exit OUT-THINK), so press **RETURN**. You don’t need to preview the text again, so type **N** at the preview prompt. The titles will be printed and shown on the screen at the same time.

Next, type **ESC P E** to eject an extra page from the printer. The Print Eject command is a convenience feature to allow you to align your paper at the top of the next form after a printout.

Summary

In this session, you have concentrated on the outline editor and have seen how you can benefit from the outline approach to organizing text.

You have generated outlines by combining groups of titles under one title and by splitting categories into several subordinate groups. Then, you have used the outline editor commands to manipulate the structure that you created. By hiding the details while you focus on the higher levels, these commands help you see the forest without getting lost in the trees.

You have also experienced the rapid lookup capabilities of OUT-THINK by retrieving text stored in topic files and copied title templates to use in creating an org chart.

Now, you can exit OUT-THINK by typing **ESC ESC** in the outline editor. Or you can continue with the next session.

Session 3 — Agenda

If you have exited back to CP/M, then start OUT-THINK again the same way that you did at the beginning of session 1 (**enter the OT command at the CP/M prompt**), and enter the topic manager.

If you did not exit from OUT-THINK at the end of session 1, then return to the topic manager by typing ESC T in the outline editor.

The memo and org chart are now complete, but you remember a few other agenda items for the meeting. There were a couple of announcements that you needed to make and you have some notes to remind you. You probably should make a list of things so you won't forget during the meeting.

OUT-THINK is an excellent tool for making agendas, to-do lists, and lists of all kinds. It can be used to plan an agenda or presentation and then, during the meeting or presentation, you can actually use OUT-THINK and your computer as an audio-visual aid.

Since outlines map the relationships between your concepts and since they are flexible and can grow as your ideas evolve, they can provide a useful tool for collecting and organizing information. You can key in your ideas quickly while you are brainstorming, and then, using the outline editor commands, go back to evolve the structure.

In this session, you will plan an agenda and in the process:

- see how you can use OUT-THINK to brainstorm
- go back and organize your ideas
- explore a few more information retrieval commands

To get started, use the **P** command in the topic manager to prepare a new topic called **MEETING AGENDA** on drive **B** with a size of **16K**. Make sure all the topics (especially the **DEMO**) topic are marked for searching (use the **T** command in the Topic Manager). Edit the new **MEETING AGENDA** topic by advancing to it and pressing the **RETURN** key.

Brainstorming

The screen is blank except for the top title:

. MEETING AGENDA

If you have toggled off subtitle entry (you typed **Y** previously), then type **Y** again now to toggle them back on.

The first thing you think of is the month end status reports that are due. **Insert Down (I D) and enter the following:**

= NEW KEY: Monthly Reports

Enter the subtitle next:

= NEW SUBTITLE: — Due Friday. Try to get them in on time.

Then, Insert Next (I N) and enter the following:

= NEW KEY: Last Quarter Financials

No subtitle is needed, so **press RETURN for the subtitle prompt. Insert Next the following key:**

= NEW KEY: Sales Up Sharply

Press RETURN for the subtitle. Insert Next the following key:

= NEW KEY: Expected the Climb

Then, enter the subtitle:

= NEW SUBTITLE: — Normal during Christmas Buying Season

Insert Next the following key:

= NEW KEY: Projecting Record Sales

Then, enter the subtitle:

= NEW SUBTITLE:- Q2 and Q3

Next, Insert Next the following key and subtitle:

= NEW KEY: Expense Reports

= NEW SUBTITLE: — Start using the new forms

Your outline now looks like this:

- + MEETING AGENDA
 - . Monthly Reports — Due Friday. Try to get them in on time.
 - . Last Quarter Financials
 - . Sales Up Sharply
 - . Expected the Climb — Normal during Christmas Buying Season
 - . Projecting Record Sales — Q2 and Q3
 - . Expense Reports — Start using the new forms

Querying for Information

You vaguely remember that there were a few other things that you needed to cover at the meeting. You made notes about them Friday in your SCRATCH PAD topic. In this example, Scratch Pad is a stem in the DEMO topic; but in "real life" you would probably make it into an actual topic. If you make a SCRATCH PAD topic on your Working System Disk, you can rapidly switch to it to make notes while you are working on something else. Then, return to the main topic you are working on.

Later, when you need to retrieve the information from Scratch Pad, you can use the Query commands to do that without having to switch topics. You stay in the outline editor on the same outline. In this example, **type ESC Q** and you get the query prompt:

```
===== ESC QUERY (View,Focus,Keys,Titles,Stem,Branch,Context)
```

The options are very similar to the ESC S show options that you used when making the org chart (see the section on hoisting and de-hoisting). You can display the outline from several different perspectives: the View (the neighborhood of surrounding keys), the Focus (ancestry), the Keys (descendents), the Titles (descendents), the Stem, the Branch, or the Context. We'll cover the context later; the other options all have direct counterparts with the show commands.

The difference between query and show is that the show options display the outline relative to the current key while query options prompt you for a key and display relative to the key you enter. You can specify any key in any topic that has been marked for searching. And, as with the lookup command, you don't have to spell the key exactly. You just have to enter something that sounds like the key.

In this example, **type S at the ESC QUERY prompt** (for query stem), **and enter "scratchpad" as follows:**

```
===== Key: scratchpad
```

The query command then searches the marked topics looking for a key that sounds like "scratchpad". The screen is cleared and a status message is displayed for each topic that is searched:

```
.... SEARCHING TOPIC: DEMO
Scratch Pad
===== Candidate (Yes,No,Focus)? Y
```

When it reaches the DEMO topic, it should find the candidate key, display its title, and display the candidate prompt. **Type Y at the prompt** and the query command clears the screen and displays the query that you requested; in this case, it shows the stem:

Scratch Pad

Don't forget about meetings to explain insurance coverage changes.

Building Maintenance people are going to have power off Sat. 11AM-4PM.

.... [Continue]?

There were two reminders: one about the insurance coverage meetings and the other about the building shut down over the weekend. **Type Y** to continue. You return to the same topic you were editing (MEETING AGENDA) without losing your place; the topic is expanded just as you left it. **Make sure you are on the Expense Reports title. Type I N** to insert next and **enter the following key and subtitle:**

- = NEW KEY: Meetings to explain
- = NEW SUBTITLE: new insurance coverage

Then, enter the other note by typing I N again:

- = NEW KEY: Building Power Shut Down
- = NEW SUBTITLE: — Saturday 11 am — 4 pm; Don't come in.

Organizing the List

Now, you need to move things around to organize your list:

- + MEETING AGENDA
 - . Monthly Reports — Due Friday. Try to get them in on time.
 - . Last Quarter Financials
 - . Sales Up Sharply
 - . Expected the Climb — Normal during Christmas Buying Season
 - . Projecting Record Sales — Q2 and Q3
 - . Expense Reports — Start using the new forms
 - . Meetings to explain new insurance coverage
 - . Building Power Shut Down — Saturday 11am — 4pm; Don't come in.

First, go to the Last Quarter Financials title. The following three titles should be demoted under this one. **Go to Sales Up Sharply and type M R** to move the title right and demote it. Note that you don't have to mark the title to move it right. Move right and Move left operate on the current stem only and don't require you to mark it in advance. **Go to Expected the Climb and move it right also. Then, go to Projecting Record Sales and move it right.** The outline now appears as follows:

- + MEETING AGENDA
 - . Monthly Reports — Due Friday. Try to get them in on time.
- + Last Quarter Financials
 - . Sales Up Sharply
 - . Expected the Climb — Normal during Christmas Buying Season
 - . Projecting Record Sales — Q2 and Q3
 - . Expense Reports — Start using the new forms
 - . Meetings to explain new insurance coverage
 - . Building Power Shut Down — Saturday 11am — 4pm; Don't come in.

Go up to Last Quarter Financials and edit the title (press the = key). Type CTRL-Y to delete to the end of the key and enter the new key:

= NEW KEY: State of the Business

For the new subtitle, enter:

= NEW SUBTITLE: — Last Quarter Financials

Now, type I N to insert next and enter the following key:

= NEW KEY: Announcements

Press RETURN at the subtitle prompt. Then, go to the Expense Reports, Meetings about insurance coverage, and Building Shut Down titles and demote each of them subordinate to Announcements so that the outline looks like this:

- + MEETING AGENDA
 - . Monthly Reports — Due Friday. Try to get them in on time.
- + State of the Business — Last Quarter Financials
 - . Sales Up Sharply
 - . Expected the Climb — Normal during Christmas Buying Season
 - . Projecting Record Sales — Q2 and Q3
- + Announcements
 - . Expense Reports — Start using the new forms
 - . Meetings to explain new insurance coverage
 - . Building Power Shut Down — Saturday 11am — 4pm; Don't come in.

Type U to go up to MEETING AGENDA and type I D to insert the following key down:

NEW KEY: Deadlines

Press RETURN at the subtitle prompt. Go to the Monthly Reports title and demote it by typing M R.

Next, you decide to change the order. **Go up to Deadlines and mark its branch by pressing the TAB key. Then, go next (type N) to Announcements and type M N to move Deadlines to be next after Announcements. The outline now appears as follows:**

- + MEETING AGENDA
 - . Monthly Reports — Due Friday. Try to get them in on time.
- + State of the Business — Last Quarter Financials
 - . Sales Up Sharply
 - . Expected the Climb — Normal during Christmas Buying Season
 - . Projecting Record Sales — Q2 and Q3
- + Announcements
 - . Expense Reports — Start using the new forms
 - . Meetings to explain new insurance coverage
 - . Building Power Shut Down — Saturday 11am — 4pm; Don't come in.
- + Deadlines
 - . Monthly Reports — Due Friday. Try to get them in on time.

One more thing to add now. **Go to Deadlines and type I N to insert the following key and subtitle:**

- = NEW KEY: Reorganization
- = NEW SUBTITLE:and New Products

Note that if your key and subtitle read together as this one does, you should type a space as the first character of the subtitle. Try to avoid using keys that end in spaces.

The final agenda outline is shown as follows:

- + MEETING AGENDA
 - + State of the Business — Last Quarter Financials
 - . Sales Up Sharply
 - . Expected the Climb — Normal during Christmas Buying Season
 - . Projecting Record Sales — Q2 and Q3
 - + Announcements
 - . Expense Reports — Start using the new forms
 - . Meetings to explain new insurance coverage
 - . Building Power Shut Down — Saturday 11am — 4pm; Don't come in.
 - + Deadlines
 - . Monthly Reports — Due Friday. Try to get them in on time.
 - . Reorganization and New Products

Printing the Agenda

Now, you have finished creating the meeting agenda and you can print it. **Make sure your printer is connected properly and is online. Go to the top of the outline to the key MEETING AGENDA. Type ESC P T** to print the titles just as you did at the end of the last session. This time, print the titles with section numbers. You do this by changing the Section # Depth (item F in the format parameters menu) to a non-zero value.

Type F to change the Section Number Depth. **At the prompt:**

F Section # Depth: 3 New = 2

enter the digit two (2) for two levels of section numbers. After you enter this value, the parameters are re-displayed with the new value.

When the parameters are re-displayed, press the RETURN key for no further changes. **At the next prompt:**

==== Preview First? Y

type Y as shown to display the output on the screen first before you actually print. **After the titles are shown, type Y at the “.... [Continue]?” prompt** to return to the outline editor.

Type ESC P T again to print titles. **This time**, you don't need to change the format parameters, so **press RETURN**. You don't need to preview the text again, so **type N at the preview prompt**. The titles will then be printed and shown on the screen at the same time.

Backing up Topic Files

Before you head off for your department meeting, you should backup the topic files you have created: CORRESPONDENCE, ORG CHART, and MEETING AGENDA. You'll need the second blank formatted disk to serve as your backup.

It's hard to overemphasize the importance of making backup copies of your valuable work. We think it's so important that we put a command in OUT-THINK so you don't even have to exit to CP/M to backup. Just be sure to make backups of all your important work and you'll be glad you did.

Type ESC T to return to the topic manager. If you are running on a RAMDISK or a hard disk system, you may need to add your backup floppy drive to the Drive Search Path. **Type ESC P** and you get a status menu that lists the current drive search path. **If the destination drive for your backup copies does not appear in the list, type in a new list that includes the backup drive. This demo assumes you will be using floppy drive A. If the list already includes your backup drive, just press RETURN to keep the old list.**

Next, **type N** (the New Context) command to get the prompt:

==== New Context, Ready?

The New context command allows you to safely change the disks in your floppy drives. Don't ever change disks without using this command. (Changing disks is also called "logging in" a new disk on some CP/M systems.) Also, don't ever change the disk until after you get the prompt. If you switch disks without using the N command, you may damage your topic files. OUT-THINK must be notified before you make the change so it can close any files that were left open on the old disk first.

Now, if you are running on a dual floppy system (2 floppy drives), **remove the Working System Disk from drive A and replace it with a new formatted disk that contains a copy of the HELP.TOP file.** (You made this disk when you installed OUT-THINK.)

Next, **type Y at the prompt** and OUT-THINK returns to the topic manager.

Then, **advance to the CORRESPONDENCE topic and type B** (for Backup) to get the prompt:

==== Backup to what Drive: A

Enter A as shown to direct the backup copying to drive A (Note: if you are running on a RAMDISK or hard disk system, you may need to direct the backup to the drive where you keep backup copies.)

OUT-THINK does a simple and rapid file copy for the backup command, it does notprepare a topic and index every stem as it copies. It is equivalent to using the PIP command in CP/M.

When the copy is done, the backup command displays the message:

```
.... Working .... ==== DONE =====
```

Next, **advance to the ORG CHART topic and repeat the process. Then, backup MEETING AGENDA.**

After all this backing up, switch back to having your Working System Disk in drive A. You only need to do this if you removed the Working System Disk to make the backups. BEFORE inserting it back into drive A, don't forget to use the New Context command again (**type N**):

```
===== New Context, Ready?
```

After (and ONLY AFTER) you get this prompt, remove the backup disk from drive A and replace it with your OUT-THINK Working System Disk. Then, type Y.

Remember: don't remove or change any disks while running OUT-THINK until after you type N in the topic manager.

Summary

This session has illustrated how an outline processor can be used during the brainstorming phases of your writing to quickly enter your ideas and main points. Then, you can go back and use the outline editor commands to re-organize the main points and watch as your ideas take shape. You gradually evolve a structure. And, if you are writing a report, you can flesh out the skeleton outline you have created by entering text leaves.

You also explored some more of the information retrieval features of OUT-THINK. With its rapid retrieval, its organizational capabilities, and its flexible editing, OUT-THINK is a powerful tool for creating and keeping track of large amounts of text. But with its simple operations, you can even experience a benefit when creating a short To-Do List.

You are ready for your department meeting and department lunch, and your files are safely backed up. **So type ESC ESC to exit OUT-THINK and return to CP/M.**

Session 4 — Project Plan

After your scrumptious lunch, you decide to get back to work on the Project Plans for the new High Tech line of outdoor gear.

The previous three sessions have concentrated on editing leafs and outline editing. They have illustrated how to create an outline structure, how to modify it, how to use title templates and boilerplate text, and how to use an outline to brainstorm and add structure to your ideas later.

This session concentrates on the input and output features of OUT-THINK. You will edit and print a project plan and, in the process, learn how to:

- extract outlines and resize topics
- write an output text file that can be edited by a word processor (i.e., convert an outline to a text file)
- read in an existing text file made with a word processor (i.e., convert a text file to an outline file)
- print a document with formatting

First, start up OUT-THINK from CP/M (**enter the OT command at the CP/M prompt**). **Be sure that you have your OUT-THINK Working System Disk in drive A. And, make sure that you have the same disk in drive B from the previous sessions with the MEETING AGENDA, ORG CHART, and CORRESPONDENCE topics on it.** Enter the topic manager.

Extracting an Outline

Advance down to the DEMO topic and edit it. Go to the Project Plan branch and type ESC C to get the prompt:

```
==== ESC COPY (Down,Next,Extract,Marked)
```

Type E to do a Copy Extract. You have already done two of the marked copy operations (copy down and copy next). This time, you can extract a copy of the branch containing the project plan. The Copy Extract command creates a new topic and copies into it, so you don't have to separately create the destination topic with the Prepare command. First, Copy Extract prompts for the new topic name:

```
==== New Topic Name: B:PROJECT PLAN  
New Size (Kbytes): 16
```

Next, it prompts for the size. **Enter the values as shown** and the new topic is created. Be sure to specify drive B for the destination topic. (If you have a hard disk or RAMDISK, you may wish to direct the output to a different drive.) After creating the new topic, the Copy Extract command writes and indexes each stem in the source branch:

```

===== New Topic Name: B:PROJECT PLAN
          New Size (Kbytes): 16
===== PREPARING NEW TOPIC:'PROJECT PLAN' ===== DONE =====
===== COPYING AND INDEXING STEMS =====
Writing: Project Plan
Writing: Overview
Writing: High Tech Hiking Boots
Writing: Product Description
Writing: Market Analysis
Writing: More Market Analysis
Writing: Schedule
Writing: Staffing Requirements
Writing: High Tech Backpack
Writing: Product Description
Writing: Market Analysis
Writing: Schedule
Writing: Staffing Requirements
===== DONE =====

```

When the copy is done, OUT-THINK goes into the outline editor on the newly created topic.

The copy extract is not a block operation. It does not require you to mark the source before you copy. It assumes that your current location in the outline editor is the top of the source branch to be copied.

Writing a Text File

Next, you need to add the staffing requirements leafs for each project. You already have the data in the ORG CHART topic. You just need to move it into the appropriate leafs. You can do this without re-typing by first writing the Org Charts to a text file and then reading them back in to a leaf.

Let's do it. First, switch over to the ORG CHART topic that you previously created. **Use the G command to list topics and enter "ORG CHART" to edit it. Go to your name (shown here as The Boss) and type X to expand down one level.**

```

+ ORG CHART — High Tech Gear Department
+ The Boss
  + Project Leader — Sharon Myers, High Tech Backpack
  + Project Leader — Marty Jones, High Tech Hiking Boots

```

Go down to the first Project Leader branch and type ESC O to get the prompt:

```
===== ESC OUTPUT-FILE (Keys,Titles,Branch,Outline,Marked)
```

at the bottom of the screen. The first four options do not require that you mark the source. The Write Marked stems is a marked operation and you have to tag the selected stems that you want to collect together in a text file.

In this case, **type T** to write the titles to an output file. The next prompt asks you for a filename. **Enter the value as shown:**

==== File Name: B:ORGBPTXT

Next, you get the same format parameters menu that is shown with the print command. However, the file output options do not obey all the print parameters. Check the individual outfile command descriptions in the reference section for more details.

Type F to change the Section Number Depth. **At the prompt:**

F Section # Depth: 3 New = 0

enter the digit zero (0) to turn off section numbers. The parameters are re-displayed with the new value.

Type M to turn off Headers & Footers. **At the prompt:**

M Headers & Footers? YES New = N

type the letter N to turn them off. **When the parameters are re-displayed, press the RETURN key** for no further changes.

If you were going to edit the output text file with WordStar or NEWWORD or some other WordStar-like word processor, you would change item L to a YES in order to produce a WordStar document file.

As soon as you **press RETURN**, the text file is created and you return to the outline editor on the Project Leader key.

Go to the other Project Leader branch and do the same thing. This time use a different file name:

==== File Name: B:ORGHB.TXT

If you specify a name that already exists, the existing file is overwritten. This time you don't need to change any of the format parameters.

Reading in Existing Text

Once the text files are written from one place, you can read them back in at another place. **Go back to the PROJECT PLAN topic (use the J command). Expand and go down to the Staffing Requirements leaf for the Hiking Boots project.** This is the place where you would like to read back in the two previously written org charts. **Type ESC I** to get the prompt:

==== File Name: B:ORGHB.TXT

at the bottom of the screen. The org chart for the hiking boots project is in B:ORGHBTXT, so **enter the filename as shown**. As a convenient reminder, the top of the screen shows a directory of the files on all the drives in the current drive search path. (OUT-THINK has a built-in file directory command that you can use to see the files and free space on your drives. The file directory command is D in the topic manager or ESC D in the outline editor.)

A new stem is inserted down from Staffing Requirements and the file ORGHBTXT is read into that new leaf. The filename without the drive spec (ORGHBTXT) is used as the key for the stem. When the file read-in is complete, OUT-THINK returns to the outline editor. If the file requires more than one leaf, the stems are inserted next to the first one in a sequence.

Next, **edit the newly created stem called ORGHBTXT** and block copy the text to the yank buffer. **Type ESC M to mark the start; scroll down to the end of the leaf; type ESC C; and exit from the leaf editor.**

Go to the Staffing Requirements stem and edit it. Go one line past the line which has the word "TBD" centered on it and yank (CTRL-U) the project team text into place. Then, delete the line with TBD on it and any other extra blank lines that you may not want. Type ESC Q to save the leaf and exit. Go down to ORGHBTXT and delete the stem (press the DEL key followed by S and answer Y to the prompt). You delete the stem at this point because it has served its purpose and is no longer needed.

Now, do the same thing for the other project team. **Go to the other Staffing Requirements stem (for the backpack project team). Type ESC I (to insert an outside text file) and enter the file name:**

==== File Name: B:ORGBPTXT

When the file read-in is complete, edit the leaf and block copy it into the correct spot in Staffing Requirements. Then, delete the ORGBPTXT leaf.

Note: If you are reading in a larger existing file, you can embed 3 dot commands into the text file using your word processor. OUT-THINK will obey these 3 commands as they are encountered to start new stems where you want them with a key name and subtitle that you specify. Otherwise, OUT-THINK arbitrarily assigns a key name as shown in this example and automatically creates new stems as needed, possibly breaking the text in mid-sentence. See the reference section of this User's Guide for more details on the ESC I command.

Resizing a Topic

As you build up topic files and edit text in them, you will begin filling them up. In the demo sessions, we have kept the topic sizes small, probably smaller than you would have in actual usage. With OUT-THINK's retrieval capabilities, you can maintain fairly large text files and still access and edit them easily. Eventually, however, you will run out of room, even in larger topics. Then, you have to resize the topic to a larger one or extract out branches into separate topics.

Let's assume that you plan to eventually double the size of the project plan you are working on. So you decide to resize it now. **Go up to the top title and type =** to edit it. **Enter "OLD" before "PROJECT PLAN".**

= NEW KEY: OLD PROJECT PLAN

Editing the top key (i.e., the topic name) is a good practice because it allows you to give the new resized topic the same name as before. Duplicate topic names are not permitted by CP/M and, during resize, OUT-THINK uses the topic names for copying.

After adding "OLD" to the top key, exit to the topic manager (ESC T) and advance to the OLD PROJECT PLAN topic. Type R to resize the topic. Enter the new topic name and size as shown below, making the new topic 32 K or double the size.

```
==== New Topic Name: B:PROJECT PLAN
      New Size (Kbytes): 32
==== PREPARING NEW TOPIC:'PROJECT PLAN' ====  ===== DONE =====
==== COPYING AND INDEXING STEMS =====
Writing: Project Plan
Writing: Overview
Writing: High Tech Hiking Boots
Writing: Product Description
Writing: Market Analysis
Writing: More Market Analysis
Writing: Schedule
Writing: Staffing Requirements
Writing: High Tech Backpack
Writing: Product Description
Writing: Market Analysis
Writing: Schedule
Writing: Staffing Requirements
==== DONE =====
```

OUT-THINK displays the same status messages as it did with the COPY EXTRACT as it re-indexes the topic. The percent used on the new topic should be about half the percent used on the old one. As you can see Resizing is a lengthy operation. It is not something you should plan on doing too often. It should not be regarded as a way to copy topics.

Next, advance to the OLD PROJECT PLAN topic and type K to kill it. At the prompt:

==== KILL Topic, Are You Sure? Y

type Y to kill the old topic file after you have resized it.

You can also resize a topic to a smaller size. For example, you might misjudge the amount of room you need when you first create a topic. Later, after you are finished creating the outline, you find that the topic is only 40% full. You can resize it down to a smaller size (say 45% of its old size) so that it will not take as much disk space.

Printing a Document

In the previous sessions, you have done simple print operations to print small outlines and text in leafs. OUT-THINK offers a wide variety of formatted printing options, including page numbers, headers and footers, and table of contents.

There are two kinds of formatting in OUT-THINK:

- formatting on individual stems
- global formatting parameters that affect all stems being printed

To print a formatted document, you must first set the formatting switches on individual stems and then set the global format parameters. Finally, you print the outline.

At this point, you are ready to print a copy of the project plan and learn about both types of formatting.

Before printing the outline, you can show a trial run of the formatted output on the screen to check page breaks, margins, and so on. Then, after previewing the output on the screen, you can print it on paper.

Advance to the PROJECT PLAN topic and press RETURN to edit it.

Formatting Individual Stems

Each stem in an outline has three format switches that you can set to control justification, page breaks, and hidden titles. The ESC F command lets you set these switches. You can set the switches on individual stems one at a time with ESC F or on a whole branch at once with ESC F B. The ESC S K command (show keys) displays the switch settings for each stem. (You can also print the keys with the ESC P K command to get a printed copy of the switch settings.)

Type ESC S K at the top of the PROJECT PLAN outline and you get the following display:

==== KEYS IN BRANCH: 'PROJECT PLAN' =====

```
PROJECT PLAN  HV*    4% 86-05-01 00:00 <--
  Overview F*    42% 86-05-01 00:00
    High Tech Hiking Boots F*    5% 86-05-01 00:00
      Product Description L:    10% 86-05-01 00:00
      Market Analysis L*    16% 86-05-01 00:00
        More Market Analysis HL:    23% 86-05-01 00:00
      Schedule L:    17% 86-05-01 00:00
      Staffing Requirements V:    23% 86-05-01 00:00
    High Tech Backpack PF*    6% 86-05-01 00:00
      Product Description L:    19% 86-05-01 00:00
      Market Analysis L:    40% 86-05-01 00:00
      Schedule L:    17% 86-05-01 00:00
      Staffing Requirements V:    22% 86-05-01 00:00
....[Continue]?
```

The format switch settings are indicated by letters that immediately follow each key:

H	hidden title
P	page break
L	left justified
F	full justified
V	no justification (i.e., verbatim)

The justification switch can be set to L, F, or V. These settings are mutually exclusive; i.e., no stem can have more than one of the three values set. Whenever you set the justification switch to one of its values, the current value is automatically replaced. The hidden title switch (H) and page break switch (P) are either on or off. The default setting for a newly created stem is left justified with page breaks off and hidden titles off.

The title character (*, +, :, .) immediately follows the format switch settings. Then, the percent full on the leaf is shown followed by the date the stem was last edited.

Type Y to continue. If you want to print out the listing instead, make sure your printer is connected and type ESC P K. Turn headers and footers (item M) off and set the section number depth (item F) to zero.

Hiding Titles and Printing Leafs Only

The hide format switch (H) allows you to print leafs only and hide the titles. (You can print titles only with the ESC P T command.) The result of hiding titles is that you can print a continuous stream of text under a main, non-hidden title. This feature is useful if you fill up a leaf (2420 characters) before you finish entering the text for that title. The hide switch can be turned on (indicated by an H) or off. The default on new stems is to have it turned off.

Go down to the More Market Analysis title which is set to hidden. When you get to the More Market Analysis title, you can confirm what formatting it has by using the ESC S V command. **Try ESC S V now.**

Because the More Market Analysis title is hidden, it will not be printed and its leaf will be printed immediately after the preceding Market Analysis leaf.

Go up to the preceding title and edit its leaf. Scroll down to the end of the leaf and note that there is no blank line after the last line in the leaf. Type ESC ESC to exit. The reason for this is that OUT-THINK puts a blank line between stems even if the title is hidden. If you also have a blank line at the end of the leaf, you'll get two blank lines between the paragraphs. To get normal paragraph breaks of one blank line, avoid a blank line at the end of the leaf preceding a hidden title.

Forcing a Page Break

OUT-THINK automatically pages the output during printing based on the setting you give for the page size format parameter. You may, however, want to force a page break on certain titles. You can do that by setting the page format switch on the stem. Then, during formatted printing, a new page will be started with that stem. In the example, the High Tech Backpack title is set for a page break, so this section of the report will begin on a new page. The page switch can be turned on (indicated by a P) or off. The default for new stems is to have it turned off.

If you print titles with ESC P T, the printout obeys all the format switches including the page format switch. In this case, you may want to clear page settings on stems before printing titles; otherwise, you'll get a page break in your printout where you may not expect one.

Printing with Justification

The justification switch can be set to one of three values to control how the stem obeys the margin settings. The margin settings in OUT-THINK are global settings that apply to all formatted output.

The stems that are set to L for left justification are printed out obeying both the left and right margin settings. Text is printed aligned on the left margin and ragged right at or before the right margin. The lines are automatically "word-wrapped" to fill the space between the left and right margins. The default setting when you create a new stem is left justified.

The stems set to F for full justification (e.g., Overview) also obey both margin settings when printed. Text is printed in a rectangular shape aligned along both the left and right margins with spaces inserted to fill out short lines.

Both F and L settings cause text within a paragraph to print within the margins.

The stems set to V for verbatim (e.g., Staffing Requirements) are printed verbatim. The text appears exactly as it does in the leaf except that the left margin is always obeyed. If a line is longer than the right margin, it will print beyond your right margin setting. In other words, the right margin is not obeyed. If it is offset from the left margin in the leaf, it will print offset from the left margin. Use verbatim text when you have tabular material, or charts that are indented, or any material that is typed with extra spaces in it.

The F, L, and V switches act like a three-way light switch. You cannot have all three switches set on a single stem. As soon as you set F or L, the V switch is cleared. As soon as you set V or L, the F switch is cleared. As soon as you set F or V, the L switch is cleared.

The default setting is left justified, so you have to explicitly set one of the other format switches to get full justified or verbatim printing.

When you clear the format switches, all the switches are reset to their defaults; i.e., the page switch is turned off, the hide switch is turned off, and the justification switch is set to left justify.

When you insert a new title, all the switches are set to these same defaults.

Setting Global Format Parameters

Once you have set the format switches on individual stems, you can print the document. **Go to the Overview title in PROJECT PLAN and type ESC P. At the prompt:**

```
===== ESC PRINT (Keys,Titles,Branch,Outline,Marked,Query)
```

type B to print the branch. (The only difference between printing a branch and printing an outline is that the branch is printed without indentation and the outline is printed with indentation to show each level.)

As soon as you select an option from the menu, you get the global format parameters menu. The format parameters apply to all the stems that are being printed. You can set these parameters separately with the ESC F A command, but the print command automatically shows you the values and allows you to change them.

```

===== FORMAT PARAMETERS =====
A   # Lines Per Page: 66
B   Left Margin: 4
C   Right Margin: 72
D   Line Spacing: 1
E   Indent Size: 2
F   Section # Depth: 3
G   Table of Contents Depth: 3
H   Output Depth: 16
I   Use Expanded Outline? NO
J   Stop Before Page? NO
K   # Copies: 1
L   WordStar Output? NO
M   Headers & Footers? YES
N   Rotate Headers & Footers? NO
O   Title in Header? NO
P   Header: PROJECT PLAN
Q   Date in Footer? YES
R   Footer:
S   Page # in Header? YES
T   Page # in Footer? YES
U   Page # Prefix: Page
V   Starting Page #: 1
===== Type Letter of Item to Change; RETURN for No Change:

```

You can read a detailed description of each parameter in the reference section. The following sections provide an overview of the commands to:

- control the page layout (items A-E)
- the scope of what's printed (items F-I)
- the headers and footers (items M-V)

Three other parameters (items J, K, and L) let you:

- pause before each page (if you wish to print on single sheets of paper)
- control the number of copies printed
- generate a WordStar document file as output (ignored during printing and used only for file output)

Controlling the Page Layout

The first set of parameters control the page layout. You can control the left (B) and right (C) margins, the line spacing (D), the number of spaces for each level of indentation (E), and the page size (A). The indentation spacing is ignored when you print the branch because the document is printed flush left, but it is used when you print keys, titles, or outline.

For this example session, you don't need to change any of these values.

Controlling the Scope of What's Printed

The next group of parameters let you control the scope of what is printed.

Each of the print command options (except Print Marked) starts at the top of the branch you are currently on and prints items from the current branch. You have several ways to control the level of items that are printed by specifying depth values. The depth is the number of levels down or subordinate relative to the top of the branch.

You can set the section number depth (item F) to print section numbers for each title down to the specified level. Set this value to 0 if you want to turn off section numbers; otherwise, OUT-THINK automatically puts section numbers on titles.

You can set the Table of Contents Depth (item G) to control the level of subordinate titles that appear in the table of contents. Set this value to 0 to turn off the table of contents; otherwise, OUT-THINK automatically creates a table of contents for those output commands where a table of contents is appropriate.

You can also set the output depth (item H) to control the how many levels of subordinate stems appear in the output. For example, if you set this value to 4, then no matter how many levels down you have entered stems, only the four levels below the top of the branch get printed.

Another way to control the scope of what gets printed is to set the Expanded Outline parameter (item I). Then, OUT-THINK outputs only those stems whose titles are expanded in the outline editor. This is an extremely flexible feature. It allows you to very selectively print sections of an outline in which you control what branches are printed with a controlled depth of detail on each branch.

In addition to setting these parameters, you can also use the ESC P M command to print marked stems only. Then, you can control exactly which stems get printed from each branch or level. Or you can print titles only with ESC P T. Finally, you can set all the titles hidden and print leafs only without any titles.

Using different combinations of these format parameters, format switches, and print commands, you can print any part of the outline that you want.

For the PROJECT PLAN example session, you should set items F-I to the values shown in the list above.

Choosing Headers and Footers

The parameters from M-V all control how headers and footers are printed. **Change the Headers and Footers parameter to YES (type M at the prompt and then Y). Change the Rotate Headers and Footers parameter to YES (type N at the prompt and then Y).** You don't need the page number in the header so change that one to

N (type S at the prompt and then N). Change the Page Number Prefix (type U to “SECRET “. Make sure you type a space at the end of the word “SECRET” to separate the prefix from the page number.

The other values can be left as they are.

You're almost ready to print now!

Previewing the Printout

After you have set the necessary format parameters, just press RETURN to get the prompt:

==== Preview First?

As you have seen in previous sections, previewing the printout allows you to see the effect of all the format parameters before printing it out on paper. Then, when you are satisfied with the formatting, you can go back and print to paper.

Type Y to preview the PROJECT PLAN printout. At the end of each page, OUT-THINK pauses with the “.... [Continue]?” prompt. **Type Y or SPBAR to continue with the next page.** The row of dashes appears on the screen at the page break and can be thought of as the perforation if you use fan-fold tractor feed paper.

At the end, you return to the outline editor. **Next, make sure your printer is connected, is online, and has paper adjusted to the top of form. Type ESC P B again; only this time, type RETURN** to keep the parameters as they are. **Then, type N** to skip the preview and actually print the PROJECT PLAN.

Printing with a Title Page

OUT-THINK also has provisions for printing a title page in the top stem of the branch you are printing. **When you return to the outline editor, go to the Overview title. Type ESC F P** to set the page break format switch. **Type ESC S V** to confirm that it has been set.

Then, go to the top of the topic (PROJECT PLAN). Type ESC F H to set the top title as hidden. Note that this stem contains a verbatim leaf and its title is set to hidden so the title won't print at all. **Type Q** to query the leaf content and you'll see that it contains a title page for the document.

Type ESC P B again. This time, change the Starting Page # to 0 (type V and then enter 0). Press RETURN and then type Y to preview the printout.

Normally, OUT-THINK does not put a header on page 1. If you start the page count at 0, OUT-THINK does not put a header or a footer on the first printed page (0). This allows you to enter a title page in the top leaf of the branch. Then, when

you set the top stem as a hidden title and as verbatim (by typing ESC F V to set the title to verbatim and ESC F H to hide the title), the leaf is printed verbatim on a page with no header and footer. If the next stem is set with a page break, you start a new page, i.e., page 1 right after the title page.

Type ESC P B at the top title again. This time, press RETURN to retain the current parameters, **and type N** to skip the preview. You will get a printed copy of the PROJECT PLAN, this time with a title page.

Summary

In this session, you have seen the many different input and output features available in OUT-THINK.

You have extracted topics and resized them. You have written files that are compatible with word processors. So you can convert topic files to text files and run spelling checkers on them or add formatting to them and print them out with your favorite word processor. You have read-in existing text files (possibly created by your word processor).

And you have seen some of the formatted printing features in OUT-THINK. You may want to print the PROJECT PLAN document again using the ESC P O to print it with indentation. You might also try ESC P M to print only those stems that you have previously marked (using the outline editor's T command).

After you finish, **type ESC ESC in the outline editor** to exit back to CP/M.

On Your Own

Through all these sessions, you have learned a lot about OUT-THINK. By now, you should have a good idea of what an outline processor can be used for and you should have gotten a lot of practice with OUT-THINK.

Even though the examples are extensive, there are still other features in OUT-THINK that you'll need to learn on your own. Here are a few pointers and suggestions to get you started.

First, there is more to the information retrieval than we've shown so far. For example, suppose that you have a large file of letters. Let's say you've been collecting them for the past year in a single topic classified by date. Then, you need to collect all the letters that mention a specific subject. Or you start having problems with a vendor delivering parts and you need to retrieve all the letters to that particular vendor.

OUT-THINK has a query context command that is similar to the Lookup command shown briefly in the sessions. Only the ESC Q C command shows all the titles

of stems containing the search string. It does not pause on each one for you to accept; it just shows it. If the list is long, you can fire up your printer and type ESC P Q to print the list. Then, once you have a list of titles, you can go through your topics and print the ones found by the query. Or you can mark them and gather them together in another topic using the copy marked command (ESC C M).

The query context command can be used in any case where you have a topic organized according to one category and you need to retrieve information according to some other subject. For example, if you have research notes classified one way and you need to retrieve all the notes dealing with some other category of information, use the query context.

Using the outline structure itself, you can easily span large amounts of text. For example, if you have an outline such as:

- * MY BOOK
- * CHAPTER 1
- * CHAPTER 2

collapsed on your screen, you simply type N to go from Chapter 1 to Chapter 2 or P to go back (or CTRL-X and CTRL-E). Chapter 1 may contain 20 pages of text, but a single key allows you to go forward and access the material in Chapter 2.

The information retrieval features like the Lookup command and Query Context and the commands that let you mark and gather stems (for copying, printing, deleting, and writing to a file) enhance your ability to span large amounts of text and move around quickly — even between topics.

Another feature of OUT-THINK that you can explore on your own is security on topic files. You can lock individual topic files and even prevent others from using your copy of OUT-THINK unless they have the proper password. (One note about the security: you must remember your password if you set up security. There is no way to display or get this information back out of OUT-THINK if you forget.)

The flashcard command in the topic manager is not only a useful command, but it can be fun too. It allows you to quiz yourself using a topic file that contains questions in the titles and answers in the leafs. OUT-THINK randomly goes to a stem and shows the title and pauses. After you think you have the answer, press a key to show the leaf and check yourself. Or you can set up a topic containing a description or definition in the leaf and you have to answer with the word or phrase in the title.

With all these features and more, you can find many practical uses for OUT-THINK. The command reference section in the next chapter describes all the OUT-THINK commands in detail. The reference cards also list the commands with a brief description of each one.

Chapter 5

Command Catalog

OUT-THINK is an interactive program where you type a single key or a sequence of keys to perform an operation you have selected. Options are organized hierarchically in command lists or menus. Once you press a single key to select an option at the outer level, you can either press another key to select from a subset of further options or type in a response to the prompt you are given by OUT-THINK.

The following summary of commands briefly describes each option using indentation to indicate the option level.

After the command summary, the remainder of the chapter contains reference material on all the commands in OUT-THINK. You'll find complete information on each command, including notes on how to use each one correctly.

Command Summary

Topic Manager

DISPLAY	MEANING
+	Indicates Marked Topic
-	Indicates Unmarked Topic
COMMAND	FUNCTION
H	Show Help Screen
P	Prepare New Topic
K	Kill Current Topic
R	Resize Current Topic
B	Backup/Copy Current Topic
D	Directory of Files
N	New Context (Change Disk)
C	List Marked Topics Context
T	Mark Topic for Searching
-	Unmark Topic for Searching
Q	Display Text in Topic
F	Flash-Card Quiz
	T Title
	L Leaf
L	Lookup String (in Context)
J	Jump to Edit Topic by Name
G	Go to Edit Topic (Show List)
SPBAR	Advance to Next Topic
RETURN	Edit Current Topic
ESC	Show/Set Status
	D Set System Date/Time
	L Lock Current Topic
	P Set Drive Search Path
	H Set System Help Level
	V Set Keytree View Range
	O Toggle Show of Owners
	ESC Escape OUT-THINK to DOS

Outline Editor

DISPLAY	MEANING
*	Stem has children, leaf.
+	Stem has children, no leaf.
:	Stem has leaf, no children.
.	Stem has no leaf, no children.
-	Stem is marked for future delete, copy, or move.

COMMAND	FUNCTION
H	Show Main Outline Editor Help Screen
CTRL-E	Go Back One Title
CTRL-X	Go Forward One Title
U	Go Up to Parent Title
D	Go Down to First Child Title
N	Go Next Title on Same Level
P	Go Previous Title on Same Level
F	Find String (Forward in Titles)
L	Lookup String (in Topic Context)
CTRL-W	Center Screen on Title
CTRL-C	Scroll Next Outline Screen
CTRL-R	Scroll Previous Screen
C	Collapse Entire Branch
X	Expand Next Level Down
B	Expand Entire Current Branch
Y	Toggle Entry of Subtitles
I	Insert New Title
	D Down
	N Next
=	Edit Current Title (same as ET)
CTRL-S	Cursor Back (Left)
CTRL-D	Cursor Forward (Right)
CTRL-A	Cursor to Beginning of Item
CTRL-F	Cursor to End of Item
CTRL-G	Delete Cursor Character
DEL	Delete Previous Character
CTRL-Y	Delete to End of Item
CTRL-X	Delete Entire Item
CTRL-U	Undo All Changes
RETURN	Save New Edited Item and Exit
ESC	Escape Edit with no Changes
E	Edit
	T Title (same as =; see options above)
	L Leaf (same as RETURN)
	B Branch (Hoist)
R	Re-Edit Outline at Top (De-Hoist)
M	Move
	L Left
	R Right
	D Down
	N Next
TAB	Mark Current Branch
T	Mark Current Stem
-	Unmark Current Stem
DEL	Delete
	S Stem
	B Branch
	M Marked
Q	Display Leaf of Current Title
SPBAR	Display Leaf and Go Forward
RETURN	Edit Leaf of Current Title (same as EL)
J	Jump to Edit Topic by Name
G	Go to Edit Topic (Show List)

ESC	Additional Outline Editor Options	
S	Show	V Current View
		F Current Focus
		K Keys in Branch
		T Titles in Branch
		S Current Stem
		B Text in Branch
Q	Query	V View
		F Focus
		K Keys
		T Titles
		S Stem
		B Branch
F	Format	C Context
		L Stem Left Justify
		F Stem Full Justify
		V Stem Verbatim
		P Stem Page Break
		H Stem Hide Title
		C Clear Stem
		B Stems in Branch
		A Assign Format Parameters
P	Print	K Keys in Branch
		T Titles in Branch
		B Text in Branch
		O Outline in Branch
		M Marked Stems
		Q Query of Context
		E Page Eject (Formfeed)
O	Outfile (write output file)	K Keys in Branch
		T Titles in Branch
		B Text in Branch
		O Outline in Branch
		M Marked Stems
C	Copy	D Marked Branch Down
		N Marked Branch Next
		E Extract Branch as Topic
		M Marked Stems
-	Unmark all marked titles	
I	Insert ASCII File	
D	Show Directory of Files	
H	Show Secondary Outline Editor Help Screen	
T	Exit to Topic Manager	
ESC	Exit OUT-THINK to DOS	

Leaf Editor

COMMAND FUNCTION

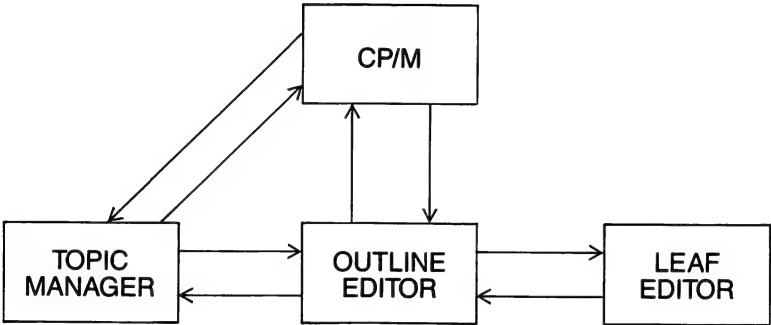
CTRL-D	Cursor Forward (Right)
CTRL-S	Cursor Back (Left)
CTRL-X	Cursor Next Line (Down)
CTRL-E	Cursor Previous Line (Up)
CTRL-A	Cursor to Beginning of Line
CTRL-F	Cursor to End of Line
CTRL-C	Next Screen of Text
CTRL-R	Previous Screen of Text
CTRL-W	Center the Screen
CTRL-Q	Find String (Search Forward)
CTRL-Z	Find & Replace With Query
CTRL-G	Delete Cursor Character
DEL	Delete Previous Character
CTRL-T	Wipe Next Word
CTRL-Y	Wipe to End of Line
CTRL-U	Insert from Yank Buffer (Undo)
CTRL-N	Open New Line for Insert
CTRL-O	Insert New Title (Split Leaf)
CTRL-V	Toggle Insert/Overstrike
CTRL-P	Insert Next Character
CTRL-B	Reform Current Paragraph
ESC	Additional options
H	Show Leaf Editor Help Screen
M	Mark Start of Text Block
W	Wipe Block to Yank Buffer.
C	Copy Block to Yank Buffer
P	Print New Edited Leaf
U	Update New Leaf to Topic
Q	Update Leaf & Quit Editor
ESC	Exit Leaf Editor
S	Show
P	% New Leaf Full
L	Old (Unmodified) Leaf
F	Focus to Current Key
V	View Near Current Key
K	Keys in Current Branch
T	Titles in Current Branch

Command Reference

The OUT-THINK program is made up of three major sets of commands:

- the topic manager commands
- the outline editor commands
- the leaf editor commands

The different parts of OUT-THINK are related to one another as illustrated:



Each set of commands is described in detail in the following sections. But first, the command to invoke OUT-THINK from CP/M is described.

Starting OUT-THINK from CP/M

There are two ways you can start OUT-THINK. First, you can type in the OT command at the CP/M prompt:

```
A>OT
```

Then, OUT-THINK runs and displays the following sign-on message:

```
[ ] = = = = = W E L C O M E   t o   t h e   O U T - T H I N K   ( t m )   [ ]
[ ]           W E L C O M E   t o   t h e   O U T - T H I N K   ( t m )   [ ]
[ ]           O u t l i n e   P r o c e s s i n g   S y s t e m       [ ]
[ ]           C o p y r i g h t   ( C )   1 9 8 5   b y   K A M A S O F T ,   I n c .   [ ]
[ ]           A l l   R i g h t s   R e s e r v e d   W o r l d w i d e   [ ]
[ ]           V e r s i o n   1 . 0           b y   A d a m   T r e n t       [ ]
[ ] = = = = = [ ]

===== Set Date, Old: 8508250307
          New:
```

You can enter the date and time in the form YYMMDDHHMM. If you only type a partial date (e.g., year, month, and day), OUT-THINK fills in the remaining values with zero. Every time you create a topic file or a new stem within a topic file or if you edit an existing stem, the item is stamped with the current date and time. If you don't want to use the stamps, you can just press RETURN to retain the old date shown.

If you assigned a printer init string when you installed OUT-THINK, you will be prompted to initialize your printer:

```
==== Initialize Printer (Y,N)?
```

Type Y to send the printer init string that you set up during installation or N to skip this. (Note: If you did not assign a printer init string during installation, you won't get this prompt.)

Next, you enter the topic manager.

The other way to invoke OUT-THINK is to type in a command at the CP/M prompt in the form:

```
A>OT topic name
```

In this case, you type the OT command, followed by a space, followed by the name of a topic that you want to edit. You must use the OUT-THINK topic name, not the CP/M file name. You can enter an optional drive prefix. For example:

```
A>OT B:MYTOPIC
```

to specify which drive the topic is on. However, the drive must be one of drives you set up in the default drive search path when you configured OUT-THINK.

In this case, OUT-THINK displays the same sign-on message shown above. However, it skips the prompt for the current date and printer init, and immediately enters the outline editor for the topic that you named on the command line.

The topic name on the command line must exactly match the actual topic name or you get the date prompt as described above and you enter the topic manager instead of the outline editor.

Topic Manager

When you first invoke OUT-THINK, you enter the topic manager unless you use the long form of the command line and specify a topic name. From the topic manager, you can go to the outline editor or you can escape back to the operating system.

Within the topic manager, you can:

- prepare new topic files
- kill existing topic files
- resize topic files
- backup topic files
- show a directory of all files
- control the topic context
- retrieve information in a topic
- edit a topic file
- set system status parameters

The topic manager can be thought of as an interactive file manager for OUT-THINK topic files. The topic manager deals with topics at a global level as files rather than dealing with the outlines or text contained in the topic.

The basic idea in the topic manager is to advance through the topics shown on screen one at a time by pressing the space bar. When you reach the desired topic, you type the appropriate topic manager command to perform some operation on that topic (e.g., resize, kill, edit, lock, etc.). Topic manager commands can be classified into the following groups:

Help	H
Prepare Commands	P, ESC, D
Kill Command	K
Resize Commands	R, ESC
Backup Command	B
Topic Context Commands	N, C, T, -, Q
Retrieval Commands	Q, L, F
Edit Commands	Q, L, J, G, SPBAR, RETURN
Status Commands	ESC, ESC D, ESC L, ESC P, ESC H, ESC V, ESC O, ESC ESC, D, G

Note that some commands are presented in more than one category. For example, the Q command, which displays the text in a topic, can provide helpful information for controlling the topic context and for deciding which topic to edit. As another example, the status parameters are displayed when you press the ESC key providing useful information if you are about to prepare or resize a topic.

You can type H to get the topic manager help screen.

Topic manager commands are either single key presses or escape sequences. You don't have to type RETURN after the commands, just press the single key or escape sequence.

Escape sequences are typed by first typing the ESC key (usually labeled ESC), releasing it, and then typing the second key. For example, ESC H is typed by pressing the escape key and then pressing the H key.

One line of information is displayed on the topic manager screen for each topic:

==== TOPIC MANAGER (H for Help) ====

DRIVE	TOPIC NAME	LAST CHANGED	LOCK	SIZE	USED	
A:	HELP	85-08-25 23:37	0	44K	95%	+
A:	OUT-THINK USER'S GUIDE	85-09-01 16:46	3	512K	85%	+

The information is shown for one topic at a time. The topic cursor is always at the end of the last line shown. Press the spacebar to advance the cursor to the next topic line. Each topic line is displayed in the same format. See the space bar command (SPBAR) for more details.

The current topic is the one that is shown last on the screen, i.e., the line containing the topic cursor. Topic manager commands that affect a topic, like resize or kill, always take effect on the current topic.

Some of the topic manager commands like the H command clear the screen to display information. Other commands display prompts and information at the bottom of the screen.

H Show Help Screen

The H command clears the screen, shows the topic manager help screen, and returns to the topic manager, which displays the topic heading line and the topic information on the first topic found.

P Prepare New Topic

The P command prepares a new topic file, prompting you for the information needed. In OUT-THINK, topic files contain outlines and you must create the topic file before you can edit an outline in it. The first thing OUT-THINK prompts you for is the topic name:

==== New Topic Name:

The name can be any phrase up to 31 characters long. The topic name can include spaces. You can also use a drive prefix to ensure that the topic is created on a specific drive. If you don't specify a drive, the default drive is used. Don't specify a CP/M extension as part of the topic name. OUT-THINK creates a valid CP/M file name based on the topic name that you give it. You should never change the file name using CP/M utilities like the REN command. Instead, use OUT-THINK commands to change a topic file name (i.e., use the edit title command in the outline editor to change the top title in the topic). The CP/M file name for an OUT-THINK topic always has the extension ".TOP".

After you specify the name, the P command prompts for the topic size:

New Size (Kbytes):

Specify the size as a number of K bytes. One K is 1024 bytes. You can think of each byte as being one character. Thus, 8K is 8 x 1024 or 8192 characters. The smallest topic size allowed is 8 Kbytes. The largest is 8000 Kbytes (i.e., 8 megabytes). A typical single sided, double density floppy disk is about 200 Kbytes; a double sided floppy is about 400 Kbytes. The size must be entered as a whole number; decimals and fractions are not allowed.

Here are a few suggestions that can help you determine the size for new topics.

First, the status command (See the topic manager ESC command.) shows the free space left on each available disk drive. You cannot create a topic that is larger than the space available on a single drive. If the drive is too full to hold the topic, you get a DISKFULLabend.

Second, leafs take about 2.5 Kbytes if they are full. Titles take about 128 bytes. If you know how many titles you will have in a topic, you can use the following guidelines to help calculate an appropriate size to prepare:

0.5 x the number of titles	if about 25% of the titles have no leafs or if most of the leafs are short.
1.25 x the number of titles	if most of the titles have leafs and the leafs on average are about half full.
2.5 x the number of titles	if most of the titles have leafs and most leafs are full.

A third guideline you can follow is that a topic will take up about 25% more room than a standard text file with the same text in it. This is because of the overhead that OUT-THINK has in keeping track of the structure of the text and in indexing for fast retrieval.

You can consult the topic manager display to see how full your topics are. The SIZE column multiplied by the % USED column will give you an estimate of the number of Kbytes of text in the topic. If you do fill a topic, the resize command (see the topic manager R command.) can be used to copy to a larger topic. You can also use the resize command to reduce the size of a topic if you don't use all the room in it.

After you enter the size, the P command prepares the new topic displaying the message:

```
===== PREPARING NEW TOPIC: 'name' ===== DONE =====
```

The topic name is shown between the single quotes. When the operation is completed, the DONE message is added to the line.

K Kill Current Topic

The K command kills the current topic, i.e., the last topic shown on the screen. Killing a topic is a serious and irreversible action. Once killed, the topic can NOT be restored. The K command prompts to make sure you want the current topic killed:

```
===== KILL Topic, Are You Sure?
```

Check the topic name and the drive it is on. If the current topic is the one you want to kill, type Y. Otherwise, type N. When the topic has been killed, the message "===== DONE =====" is displayed.

The topic being killed does not have to be marked as part of the current context. However, if there is only one topic in the current context, you cannot kill that topic until you mark another topic. There always has to be at least one marked topic remaining in the context. Do not kill the OUT-THINK HELP topic.

R Resize Current Topic

The R command resizes the current topic, i.e., the last topic shown on the screen. You can resize a topic to a larger or a smaller size. If you have filled up a topic and need to continue adding text, you can resize to a larger size. If you have finished with a topic, but it is only partially full, you can resize to a smaller size to free up some of the disk storage space. If you simply want to make a backup copy the same size, see the B command for a much faster utility.

The R command actually combines a topic prepare with a specialized copy. First, it prepares the new topic (larger or smaller) prompting you just as the P command does. You enter the name and size when requested:

```
==== New Topic Name: NEW TOPIC
      New Size (Kbytes): 64
==== PREPARING NEW TOPIC: 'NEW TOPIC' ====  ==== DONE =====
```

The new topic name should be different from the old one or it must be on a different disk drive since CP/M does not allow duplicate file names on the same drive. Use a drive prefix before the topic name to specify a drive. If you don't specify a drive, the default drive is used. The drive used must have enough free space to hold the new topic. If the drive is too full to hold the new topic, you will get a DISKFULLabend. Use the status command (See the ESC command in the topic manager.) to determine the free space available on each drive.

After the new topic is prepared, the R command goes on to copy and index every stem from the old topic. First, the leaf of the old top stem is copied to the leaf of the new top stem. Then, each subsequent stem is copied in its entirety, title and leaf. A message informing you of the progress is displayed for each stem copied:

```
==== COPYING AND INDEXING STEMS ====
Writing: key
Reading: key

...
==== DONE =====
```

Upon completion, a "DONE" message is displayed and you are returned to the topic manager at the first topic found.

If the new topic is too small to hold the old topic, you get a TOPICFULLabend and return to the topic manager at the first topic found. The new topic will contain everything copied up until it was full.

B Backup/Copy Current Topic

The B command makes a backup copy of the current topic onto another disk in the drive search path. First, make sure the destination drive (the one you want to copy to) is in the search path and that it has enough room to hold the entire topic (use the ESC command for this).

NOTE

If you need to change disks, be sure to do the new context command first. If you operate on a floppy based system, you must have a copy of the HELP topic somewhere in the current drive search path after you change disks. See the N command for details.

Then, advance the topic cursor until it rests on the topic that you want to backup. Type B and you get the prompt:

==== Backup to what drive:

Type in the drive letter (e.g., A for drive A). OUT-THINK makes a copy of the current topic onto the drive you specified using the same name. If the topic file already exists on that drive, you are prompted to overwrite the old file:

drive:filename.TOP Exists! Overwrite?

Type Y or y to overwrite the existing file or any other key to cancel the backup and return to the topic manager.

The backup command creates an exact duplicate of the topic file with the same name, size, and percent full. See the Resize command (R) or the Copy (ESC C) command in the out-line editor to change the topic size or copy a part of a topic into another topic file. The latter two commands take much longer to run than backup since they re-index all the stems while making the copy. The backup command does not re-index the stems; it is a simple file copy like the PIP command or other CP/M file copy utilities.

The B command can be helpful when running OUT-THINK on a RAMDISK. You do not have to exit OUT-THINK to CP/M to copy topic files from the floppy disk onto the RAMDISK and vice versa.

The OUT-THINK Backup command requires you to make the backup copies on a drive different from the one on which the topic currently resides. The name of the topic file is not changed and so the backup copy cannot reside on the same drive. You'll get a BADPARAMabend if you try to backup to the same drive.

If you operate on a dual floppy drive system, you will need to keep a copy of the HELP topic on each of your backup floppies. This can be a copy of the full sized HELP topic that comes with OUT-THINK. But, to use less space, you can prepare an 8K topic called HELP. Using a smaller HELP topic (which can be a completely empty topic), will allow more room on the disk for backup copies.

Typically, on a dual drive floppy, you will backup your data topics from drive B to drive A. You will have to remove the OUT-THINK program disk from drive A to insert your backup floppy. Before changing disks be sure to do the New Context command and wait until the prompt appears before you switch disks. After you insert your backup floppy, OUT-THINK must still find a topic called HELP, which was previously on your program disk. This is why you must have a topic called HELP on your backup floppy. After the backup is complete, you will switch back to your program disk in drive A. Use the New Context command for this and remember to wait for the prompt before you switch the disks.

D Directory of Files

The D command shows a directory of files for each drive in the current search path. The directory is a list of the CP/M filenames for the files on each disk. For example,

```
==== FILE DIRECTORY ====
A:HELP      .TOP      A:TEMP      .TXT      A:SCRATCH .TOP  A:CALENDAR.TOP
A:TEMP      .BAK
B:LETTERS   .TOP      B:TO-DOLIS.TOP  B:LETTER  .TXT
FOR DRIVE   A:        8KFREE
FOR DRIVE   B:        64KFREE
.... [Continue]?
```

Each new drive starts a new line of the list. Files with a .COM extension are not shown in the list.

After the filenames are shown, the free space remaining on each drive in the current search path is shown. You can use this command before you backup a topic, resize a topic, read in an outside file, write an outside file, or any other file operation. You can check the existing filenames on a drive to make sure you specify the file correctly and to make sure you don't create a conflicting name for a new file. And you can check the remaining free space to make sure you have room if you will be writing a file.

Note that for topic files, the CP/M filename is listed, not the OUT-THINK topic name.

The filenames shown in the list are those in the current user area; files in other user areas are not shown. (CP/M user areas are described in your CP/M manuals.)

N New Context (Change Disk)

The N command clears the context and allows you to change disks safely. If you use a floppy disk computer system, you may need to change disks to access different topic files on different disks. Rather than having to exit to CP/M and then re-invoke OUT-THINK with the new disk inserted, you can swap disks after typing the N command. Then, OUT-THINK can safely close any files that remain open on the existing floppy before you remove it from the drive. On some systems, this operation is called "logging in a new disk."

NOTE

If you don't use the N command when changing disks, you could lose data in your topic files and damage topics. Exercise caution when using the N command and make sure that you don't change the disks until **after** the prompt.

The N command also clears the current context, unmarking all topics that have been marked for searching except for the system HELP topic, which remains marked. When you type N in the topic manager, wait until you get the prompt:

```
==== New Context, Ready?
```

before you change the disks. Then, change the disks and type Y at the prompt to continue.

Remember that when running OUT-THINK, you must have floppies in all the disks that are part of the current drive search path.

The N command also clears the currently logged in user. If security is in effect (i.e., you have locked the HELP topic), a user name and password are requested before continuing. See the ESC L command for details on security locks.

Note that the file HELPTOP must be available on one of the drives in the current drive search path before you execute the N command.

C List Marked Topics Context

The C command lists the current topic context, i.e., the set of topics currently marked for searching. In the topic manager, marked topics are indicated by a + sign at the end of the topic line. The C command scrolls the list of marked topics up from the bottom of the screen without clearing the topic manager screen. It uses the same format as the topic manager display showing one line of information per topic for each marked topic:

===== TOPIC CONTEXT (in search order) =====							
	DRIVE	TOPIC NAME	LAST CHANGED	LOCK	SIZE	USED	
0	A:	OUT-THINK USER'S GUIDE	85-09-01 16:46	0	512K	85%	+
1	A:	HELP	85-08-25 23:37	0	44K	95%	+

The first character of each topic line is numbered indicating the order in which the topics are searched whenever you enter any search commands. See the L command in the topic manager.

If you have toggled the display of owners, the LAST CHANGED column is replaced with OWNERS. After showing a list of all marked topics, you return to the topic manager, and the topic header line is shown followed by the topic line for the first topic found.

Up to 16 topics can be marked for searching at one time. Topics can be marked for searching in several ways. The T command explicitly marks the current topic. Editing a topic (by Jumping to it, Going to it, or Editing it with the RETURN key) implicitly marks it. A newly prepared topic is always marked for searching when the P command is done. The same is true for the new topic created by the Resize command. If you display the text in a topic with the Q command, that topic is added to the current context. And if you quiz a topic using the Flash-Card command, the topic is implicitly marked for searching and added to the current context.

The C command is useful to show you the current context so you can unmark topics that you no longer need to make room for others. Also, it can be used to show you the topics that will currently be searched so that you can unmark topics that you don't want to spend time searching and reduce your search times correspondingly.

T Mark Topic for Searching

The T command marks the current topic for searching and advances to the next topic found. The current topic is the last topic shown on the topic manager screen, i.e., the line where the cursor is located. A maximum of 16 topics can be marked for searching at any one time. If you try to mark another topic when 16 are already marked, you get the TCFULL abend.

The L command searches for the string you specify in all the marked topics in the topic order shown by the C command. The most recently edited topic is searched first; then, the other marked topics are searched in the order you marked them. The most recently marked topic is searched after the most recently edited topic and the oldest marked topic is searched last.

If the current topic is already marked, marking it again has no effect other than advancing the topic manager to the next topic found; in this case, it's the same as pressing the SPBAR. If the current topic is not marked, its - indicator changes to a + and the topic manager advances to the next topic.

The T command is one of several ways to add topics to the context. If you Prepare a new topic, it is implicitly marked for searching when the P command is done. Resizing a topic implicitly marks both the old and new topic. Editing a topic (with the J command, the G command, or the RETURN command) implicitly marks the topic. Displaying the text in a topic with the Q command adds that topic to the current context. And the Flash-Card Quiz marks the topic for searching adding the topic to the current context.

– Unmark Topic for Searching

The – command unmarks any topic that has been marked for searching. Several commands mark a topic for searching causing the topic to be added to the current context:

T	Q	R
J	F	RETURN
G	P	

You can mark up to 16 topics at one time. Use the – command to unmark topics that you no longer need, making room for others. Also, by removing unneeded topics from the search order, you can speed up search times. The N command is a quick way to remove all marked topics from the current context.

When you type –, the current topic is unmarked. Its + sign changes to a – and the topic cursor advances to the next topic found. Typing – at a topic that is already unmarked has no effect other than advancing the topic cursor; in this case, it's the same as pressing the SPBAR.

You cannot unmark all the topics. At least one topic must remain marked at all times. If you try to unmark the last remaining marked topic, you get the TCEMPTY abend.

Q Display Text in Topic

The Q command displays the text in the current topic, i.e., the last topic shown on the screen. The screen is cleared and the text in the topic is displayed a screenful at a time. Press Y, SPBAR, or RETURN at the “.... [More]?” prompt to display the next screen. When the end of the topic is reached, press Y, SPBAR, or RETURN at the “.... [Continue]?” prompt to return to the topic manager. The heading line is re-displayed with the topic line for the first topic found.

Examining a topic can be useful when you are trying to decide if the current topic is the correct one that you wanted to kill, resize, mark, unmark, edit, or lock. The extra detail provided within the topic manager is a convenience so you don't have to edit the topic to find out what's in it before performing some topic manager operation on it.

F Flash-Card Quiz

The F command lets you quiz yourself on the information in a topic. By organizing your notes on a given subject into an OUT-THINK topic, you can learn the material and check your progress with a quiz on it. You can also use the FlashCard Quiz as a game. Whether you use it to pursue serious studies or to pursue trivia as a recreation, there are two ways to run the quiz: with titles or leaves.

Advance the topic cursor to the topic where you have already entered the quiz material. Then, press F to start the quiz on the current topic. The F command prompts you for a title quiz or a leaf quiz:

```
==== FlashCard (Title,Leaf):
```

Press T at the prompt to start a title quiz on the current topic.

F T Flashcard Title

The Title quiz clears the screen and displays a title selected at random from the current topic. Then, it pauses at the "... [Continue]?" prompt. Assuming the title contains a question, the pause gives you a chance to think out the answer. When you have the answer, press the Y key to display the leaf so you can check your answer with the one contained in the leaf.

Press the SPBAR or Y key to quiz again or N to return to the topic manager.

F L Flashcard Leaf

Press L at the FlashCard prompt to start the leaf quiz on the current topic.

The leaf quiz is the reverse of the title quiz. OUT-THINK clears the screen, displays a leaf in the current topic selected at random, and pauses at the "... [Continue]?" prompt. Assuming the leaf describes a concept that is named in the title, the pause gives you time to read the leaf and identify the concept described. Then, press the SPBAR or Y key to show the title and check your answer with the correct one in the title.

L Lookup String (in Context)

The L command looks up the specified string (i.e., a word or phrase) in the topic context, i.e., the set of topics marked for searching. First, OUT-THINK prompts you for a string to lookup:

```
==== Lookup What?
```

When you enter the word or phrase that you want to search for, OUT-THINK starts a two-phase search process starting with the topic most recently edited and continuing in order through any topics that are marked for searching. The C command displays the topics in the current context so you can find out which topics will be searched and the order in which they are searched.

In the first phase of the search, OUT-THINK does a sound-alike search for the string you specified. In this phase of the search, any stem with a key that sounds like the string you specified is a candidate. First, the topic being searched is shown:

```
.... SEARCHING TOPIC: topic name
```

Each time the search changes to a new topic, this message is displayed with the new topic name.

Then, the title for each candidate stem is shown and you are given three choices:

```
title
==== Candidate (Yes,No,Focus)?
```

If you type N or SPBAR, the search is continued until the next candidate is found. If you type Y or RETURN to accept a candidate, you immediately enter the outline editor, editing the candidate's topic. The outline is automatically expanded down to the candidate and the outline cursor is placed on the candidate. If you type F at the "Candidate" prompt, the focus for the candidate is shown:

```
==== FOCUS ====
  top title in topic
    great grandparent title
      grandparent title
        parent title
          title
```

The focus includes all the direct ancestors of the candidate. Then, the prompt:

```
==== Candidate (Yes,No,Focus)?
```

is repeated. The focus option provides more information about the candidate so you can determine if the candidate is the one you want to select.

The first phase of the search is completed when the sound-alike key search is done on all the topics in the context. This phase of the search is usually very rapid and is done in a few seconds. It relies on OUT-THINK's information retrieval features to quickly find the candidate keys in each topic.

The second phase of the search is optional and begins with the prompt:

```
==== Search All (Y,N)?
```

If you type N, the lookup is completed and you return to the topic manager. If you type Y, the second phase of the search looks for the specified string in the key, subtitles, and leafs of each topic in the context. This phase of the search must find an exact match to report a candidate (except that uppercase and lowercase distinctions are ignored). It will find the string if the string is only part of a key.

Otherwise, the second phase of the Lookup search is like the first phase. The topics are searched in order. A message is displayed each time the search changes to a new topic. For each candidate, you are given three choices: Yes, No, and Focus. If you accept a candidate, the search is ended and you enter the outline editor in the candidate's topic with the outline cursor on the candidate. If you type N, the search continues until the next candidate is found. F gives you a focus to the title of the stem where the candidate was found.

When no further candidates are found, a NOTFOUND message is displayed and you return to the topic manager.

The exhaustive text search also uses rapid retrieval techniques; however, this phase of the search takes longer than the key search, since there is much more text to search through to find possible candidates.

In both phases of the Lookup command, you can abort the search by typing CTRL-C.

J Jump to Edit Topic by Name

The J command jumps to edit the outline of the topic you specify by name and provides a way for you to edit a topic without having to manually advance through the topic list in the topic manager. You can also edit a topic by either accepting a candidate in the Lookup command or by going to the topic with the G command.

When you type J, the following prompt is displayed:

```
==== Edit What Topic:
```

Type in the name of the topic that you want to edit and press the RETURN key. You then enter the outline editor on the topic that you specified. If the topic cannot be found, you get a NOTFOUND abend and return to the topic manager.

You can precede the topic name with an optional drive designator to force the search to that drive. Otherwise, the current drive search path is used.

G Go to Edit Topic (Show List)

The G command clears the screen, displays the list of available topics, and edits the outline of the topic you specify by name. It provides a way for you to edit a topic without having to manually advance through the topic list in the topic manager. You can also edit a topic either by accepting a candidate in the lookup command or by jumping to the topic with the J command.

When you type G, the list of currently available topics is displayed in the same format as the topic manager list:

```
==== TOPIC LIST ====
DRIVE  TOPIC NAME      LAST CHANGED  LOCK  SIZE  USED  <-
A:     OUT-THINK USER'S GUIDE  85-09-01 16:46    3   512K   85%
A:     HELP              85-08-25 23:37    0    44K   95%
A:     READ ME FIRST BOOKLET  85-09-26 16:46    0    80K   10%
==== Edit What Topic:
```


The “<–” indicates the last topic that was edited. Type in the name of the topic that you want to edit and press the RETURN key. You then enter the outline editor in the topic that you specified. If the topic cannot be found, you get a NOTFOUNDabend and return to the topic manager.

You can precede the Topic name with an optional drive designator to force the search to that drive. Otherwise, the current drive search path is used.

The only difference between the G and J commands is that the G command shows the list of available topics before prompting you for the one you want to edit while the J command relies on you to remember the name of the topic you want to edit. The J command is quicker since you don’t have to wait for the topic list to be displayed.

The G command is a convenient way to list all the topics while in the Topic Manager. If you just press RETURN at the “Edit What Topic:” prompt, you will be returned to exactly where you were when you issued the G command.

SPBAR Advance to Next Topic

The space bar (SPBAR) advances to the next topic that it can find and displays a line of information on that topic.

==== TOPIC MANAGER (H for Help) ====

DRIVE	TOPIC NAME	LAST CHANGED	LOCK	SIZE	USED	
A:	OUT-THINK USER'S GUIDE	85-09-01 16:46	3	512K	85%	+

The DRIVE is the disk drive where the topic file is located. The TOPIC NAME is the name of the topic. The LAST CHANGED is the timestamp applied by OUT-THINK when the topic was last changed by you. If you set the date at the start of each OUT-THINK session, the date shown will reflect the actual date you last modified the topic. Otherwise, the date initially provided with your system is used. The LOCK shows the security lock level of the topic. The SIZE is the maximum size in K bytes allocated for the topic. The USED column shows the percentage of the topic that has been used.

At the end of each line of information is a + or – sign. The + sign indicates that the topic has been marked for searching and is part of the current topic context. The – sign indicates that the topic has not been marked and is not part of the current context. The topic context is the set of all topics that have been marked for searching.

Once information on every topic has been displayed, pressing spacebar again re-displays the heading and starts over at the first topic found. Thus, you can continuously cycle through the topic list by pressing the SPBAR.

The LAST CHANGED column can be changed to show OWNERS instead with the ESC O option. ESC O is a toggle command; the first time you use it, you switch from LAST CHANGED to OWNERS; the next time, you switch back to the LAST CHANGED display; and so on alternating each time you type the command.

RETURN Edit Current Topic

Pressing the RETURN key on a topic in the topic manager causes you to enter the outline editor on that topic. The topic manager provides a way for you to interactively edit topics by letting you advance through the topic list until you reach the topic you want to edit and then press RETURN to edit that topic. Other ways to edit a topic are the G command, the J command, and the L command.

See the section on the outline editor for a description of the features and commands available for outline editing.

ESC Show/Set Status

The ESC command clears the screen and shows the system status parameters, including the date, current user, view levels, help level, free memory, drive search order, and the current topic you are on in the topic manager. For example:

```
==== SYSTEM STATUS ====
Date: 85-09-20 16:46      User:
Help Level: 3      View Up: 1      View Down: 1      Memory Free: 22549
DRIVES (in drive search order; first is default drive):
FOR DRIVE  A:      1016K FREE

-----
DRIVE  TOPIC NAME      LAST CHANGED  LOCK  SIZE  USED
A:    OUT-THINK USER'S GUIDE  85-09-01 16:46      3    512K  85%  +
==== SET (Date,Lock-topic,Path,View,Help-level,Owners,ESCape):
```

At the SET prompt, you can type any key that is not on the option list (e.g., RETURN) to return to the topic manager. Type one of the option keys to select that option.

The status information is useful for many of the topic manager commands. You might want to consult the free space displayed for each disk drive before you prepare a new topic or resize an existing one. That way, you can find a drive with enough space for the new topic.

The memory free indicates the amount of space you have available for editing outlines. The outline editor takes advantage of all the free space in RAM that it can find for expanding titles. This example shows about 22K of free space which is enough room to expand about 250 titles at any one time. If you have loaded any keyboard macro programs or operating system enhancement programs, these added programs reduce the amount of free memory space and reduce the number of titles you can expand at any one time. Of course, there is no limit on the number of titles your topic can contain. You can edit a very large topic by expanding and collapsing portions of it so that no more than 200 titles are expanded at once.

The other parameters can be changed with options at the SET prompt. They are described in the appropriate section on the command that sets them.

ESC D Set System Date/Time

The ESC D command sets the system date and time. When stems are created or edited, they are stamped with the current system date and time. Also, when you prepare a new topic, it is stamped with the system date and time as its creation date. The time stamps on topics are shown in the topic manager displays under the LAST CHANGED heading. The time stamps on stems are shown in the outline editor with commands that show keys, e.g., ESC S K, ESC Q K, ESC S V, ESC Q V, etc. The stem time stamps indicate the date the stem was last modified.

When you initially run OUT-THINK from CP/M, you can enter the date and time for that session after the sign-on message. See the section on “Starting OUT-THINK from CP/M” for details. You can change the date and time after you have started an OUT-THINK session with the Topic Manager’s ESC D command which gives you the following prompt:

```
==== Set Date, Old: 8509201646  
New:
```

Enter the new date and time just below the old one in the same format: YYMMDDHHMM. YY is the last two digits of the year. The first MM is a two-digit month; use a leading zero for 1-9, e.g., January is 01, February is 02, etc. DD is a two digit day; again use a leading zero for 1-9. HH is a two digit hour; use a leading zero for 1-9. The second MM is a two-digit minute; use a leading zero for 1-9. The hour and minute should be entered according to a 24-hour time. For example, 8:00 PM is 2000; 11:00 AM is 1100. You have to add 12 to any hour after noon and before midnight. Midnight is 0000; noon is 1200.

Note that there is little error checking on the date entry. You must specify it exactly as described above. If you enter an invalid value, you will experience unpredictable time stamp values on your topics and stems. However, you can enter a partial date (e.g., only the year, month, and day) and OUT-THINK fills the remaining positions with zeroes.

Just press the RETURN key at the “New:” prompt without entering a new value to keep the old value.

ESC L Lock Current Topic

The ESC L command places a security lock on the current topic. Topic security can be set at one of four levels to protect a topic from unauthorized access or modification.

Topic security boils down to three ingredients:

- logging on with an owner name and password
- taking ownership of individual topics
- locking topics that you own with the desired level of protection

The steps that you take to set up security are:

- 1) Force OUT-THINK to give you the logon prompt for your name and password at the start of each session and each time you clear the currently logged-on user with the N command. You can force the logon prompt by locking the system HELP topic using the ESC L command.
- 2) Lock individual topics with your name and password and the desired level of protection by using the ESC L command.

Note that you can lock individual topics without locking the HELP topic. However, this leaves no convenient way for you to log back on later with the correct owner name and password to access the individual locked topics.

So, to avoid confusion, if you plan to use any security at all, we recommend that you lock the HELP topic at level 1.

Logging on as a User

OUT-THINK initially has no locked topics, and no security is set up. Thus, the system does not require you to logon with an owner name and password during initialization. If you never set a lock on any topic, you'll never get the logon prompts for your name and password.

However, if you set a lock on the system HELP topic, you will be prompted during initialization to logon with your name first:

YOUR NAME:

and then with your password:

PASSWORD:

When you type the password, the letter X is echoed back to the screen instead of the character you actually type. Thus, the password is never shown on the screen. The name and password can each be up to 15 characters long.

The logon prompt occurs during initialization before you get the date prompt. If you invoke OUT-THINK with a topic name on the command line, you get the logon prompt before entering the outline editor. You also get the logon prompt anytime you do the N command to clear the context.

The name and password entered at the prompts are logged on as the current user until you exit OUT-THINK or issue the N command to clear the current user. The current user name is shown in the status display when you type ESC in the topic manager. The password is not accessible.

If you just press the RETURN key at each prompt, no user is logged on and there is no current user in effect.

Owning Topics

Once you establish yourself as the current user by logging onto the system, you can take ownership of topics and lock them under your user name and password. You will automatically own any topic created while you are logged on. You can also take ownership of any free, or un-owned, topic by locking it.

Any newly created topic (e.g., with the Prepare or Resize commands) is automatically assigned to the currently logged on user. If the current user then locks it, the current user “owns” that topic. Anyone can lock an unlocked, level 0 topic even if they did not create it. However, only the owner can unlock a locked topic or gain full access to a locked topic.

If there is no currently logged user when a topic is created, the new topic is a free topic and has no owner; anyone can access it or change it. You can take possession of an un-owned topic by locking it. Then, your user name and password are assigned to the free topic, and you own the newly locked topic.

The ESC O command toggles the display of topic owners. (See ESC O in the topic manager for details.) The owner name for each topic is shown in the OWNER column. If a topic has no owner, the OWNER column is left blank.

To change the owner of a topic, the current owner must set the lock level to 0, in effect, unlocking the topic. Then, the new owner logs-on and locks the unlocked topic. The new owner takes over possession of the topic.

Which Level of Security to Use

You can lock a topic at any one of four levels to prevent unauthorized access or modification of the topic.

The default level 0 allows free access to the topic; the topic is unlocked and can be accessed, edited, or killed. Level 1 prevents unauthorized modification of the topic although anyone can mark the topic and access information in the topic. Accessing information means that you can print, show branches, query the topic, and copy it. Level 2 prevents unauthorized entry into the topic so that only the owner with the correct password can mark the topic. A topic cannot be edited, searched, printed, etc. if it can't be marked. Level 3 prevents both unauthorized entry and unauthorized modification.

Functionally, there is no difference between levels 2 and 3; in both cases, information in the topic cannot be accessed. However, level 3 provides an added measure of internal checking on the topic. With level 2 protection, the topic is checked when you try to mark it, and no further checking is done. With level 3 protection, OUT-THINK checks the owner when you try to mark the topic and on each subsequent attempt to modify the topic.

When a topic is initially created, it is always set to level 0 with no security. You must explicitly lock it at one of the other levels if you want security on it.

To initially set up security, you lock the system HELP topic at level 1, 2, or 3. If you set the HELP topic lock level to 1, anyone can logon to the system under their own name and password. They can access topics according to the security levels set on the topics, i.e., they cannot access other user's locked topics. They can create and lock their own topics which other users cannot access. However, no one can modify or change the HELP topic lock level unless they sign on with your user name and password.

If you set the **HELP** topic lock level to 2 or 3, no one can run **OUT-THINK** unless they logon with your user name and password. If they enter the wrong name or password at the logon prompt, they are escorted immediately back to **CP/M**.

Locking Topics

To get security started for the first time, advance the topic cursor to the **HELP** topic. Then, type **ESC L** to get the following prompt:

```
==== Lock Topic, Level (0,1,2,3) =
```

Enter the level of protection desired (1, 2, or 3). Since no user is currently logged on, you will get the logon prompt. Enter your name and password to logon as the current user. The current user remains in effect until you exit or type **N** to clear the user.

To set up security on any other topic, advance the topic cursor to the topic you want to protect. Then, type **ESC L** to get the lock topic prompt. Enter the level of protection desired. If the topic is un-owned, you take possession of it and your name and password are assigned to it. You will get the logon prompt if you attempt to lock a topic when there is no currently logged on user. The name and password you enter are logged on as the current user and assigned to the topic you are attempting to lock. This name and password remain in effect until you exit to **CP/M** or explicitly log on again by using the **N** command.

From then on, the correct owner must be logged onto the system with the correct password to gain full access to the topic. Lock levels above 0 can only be changed if the correct owner is logged on with the correct password. The password is not accessible through the system. Thus, it is very important to remember your password once you lock a topic because there is no way for you to find it in **OUT-THINK** and **KAMASOFT** has no way to reveal to you how to recover a forgotten password.

ESC P Set Drive Search Path

The **ESC P** command allows you to change the current drive path within an **OUT-THINK** session without having to re-install **OUT-THINK**. The drive search path is a list of disk drives available on your system. It specifies the drives **OUT-THINK** looks on to find topics in the topic manager. It also specifies the order in which the drives are searched during **OUT-THINK** operations. The only drives that **OUT-THINK** knows about are the ones in the current drive path.

When you configure **OUT-THINK** during installation, you set the default drive path. The default path is initially used each time you run **OUT-THINK** from **CP/M**. **ESC P** does not affect the default drive path. After you have started a session, you can change the drive path for the duration of that session only with the **ESC P** command.

Any drive that is in the drive path must have a disk in it. The disk does not have to contain topic files. In fact, it can be empty, but it must be formatted and it must be in the drive.

Because of this requirement, if you have removed a drive from your system (either temporarily for repair or permanently), you will have to reconfigure **OUT-THINK** to get through the initialization. **OUT-THINK** checks all the drives in the default drive path during initialization, and each of these drives must have a disk in it or the system may lock up. So **ESC P** cannot be used in this case.

Also, if you have permanently added a drive to your system (e.g., you've added a RAM disk or a hard disk or additional floppies), you will probably want to reconfigure OUT-THINK rather than having to change the drive path manually for every session.

ESC P is most useful in cases where you want to temporarily add a drive to the path. For example, if you have a hard disk system, you will probably not specify the floppies when you configure OUT-THINK because searching the floppies slows down the system, it requires you to insert a floppy in the drive before you can run OUT-THINK, and, most often, your topics are not on the floppies. However, occasionally, you may want to back-up a topic to a floppy or recover a topic from a floppy. In this case, just use the ESC P command to define a new path for this session and specify the hard disk and the floppy at the prompt. For example:

```
==== Old Drive Path: A
      New Drive Path:
```

First, make a list of the drives that you want to access. Under CP/M, logical drives are specified as characters of the alphabet from A through P. Next, rewrite your drive list in the order you want the drives accessed. OUT-THINK looks for topics based on the order you specify for the drive path. If you specify "AB", it will search drive A first and then drive B. If you specify "BA", it will search drive B first and then drive A. Topics on the first drive will be found more quickly than those on later drives.

The first drive that you specify is used as the OUT-THINK default drive. The default drive is assumed if you don't use a drive prefix in an OUT-THINK command that needs a drive spec.

Once you have your list, type in the drive letters with no spaces or punctuation marks. For example, if you want to add a floppy drive B to the drive path, enter "AB" as follows:

```
==== Old Drive Path: A
```

You can type the drive letter in uppercase or lowercase. In this example, A is the default drive and is searched first followed by drive B.

As a side effect, the ESC P command clears the current context unmarking all marked topics. This is necessary in case you define a new path that does not include a drive containing a marked topic.

ESC H Set System Help Level

The ESC H command allows you to set the system wide help level. Typing the ESC key shows the current help level. Then, you can change the level by typing H to get the following prompt:

```
==== Help Level (0,1,2,3) =
```

The level can be set at 0, 1, 2, or 3. Any other entry gives the BADPARAM abend. The help level determines the amount of information that is displayed when you get an abend message:

HELP LEVEL

ABEND

- | | |
|---|--|
| 0 | displays a single line message with the abend name. |
| 1 | displays a single line message with the abend name, beeps, and displays the title of the corresponding abend stem in the HELP topic. |
| 2 | displays a single line message with the abend name and the corresponding abend stem in the HELP topic. |
| 3 | displays a single line message with the abend name, beeps, and prompts whether or not to display the corresponding abend stem in the HELP topic. |

The single line message is in the form:

```
???? ABEND: <abend name>
```

The <abend name> is actually the keyname on a stem in the HELP topic that contains the corresponding abend (abnormal end) message. OUT-THINK uses its own rapid keyword retrieval to provide help messages. Since all the system help messages are in a topic file, you can edit them like text in any other topic.

If the help level is set to 3, the additional message (— MORE HELP?) is appended to the basic single line message:

```
???? ABEND: <abend name> — MORE HELP?
```

If you choose levels 1, 2, or 3, the HELP topic must be marked for searching because the additional messages are stored in this topic. It's probably a good idea to leave the help level set to 3 until you have learned the system.

ESC V Set Keytree View Range

The ESC V command sets the view levels. The current settings are displayed when you press ESC. The view levels determine the number of levels displayed above and below the specified key when you show the neighborhood with the ESC S V or ESC Q V commands in the outline editor.

When you set the view levels, the prompt:

```
==== VIEW RANGE ====
Levels Up =
```

is displayed. Type in the number of levels above a given key that you want to display when you show a neighborhood view. Then, press RETURN and the next prompt is shown:

```
==== VIEW RANGE ====
Levels Up = 2
Levels Down =
```

Now, you can enter the number of levels below a given key to include when you show a neighborhood view.

If both view levels are set to 1, the following neighborhood is shown:

- the parent of the current key is shown
- all keys on the same level as the current one (its siblings) are shown
- the immediate children of the current key are shown.

ESC O Toggle Show of Owners

The ESC O command toggles the display of owners in all the commands that display topic information lines (G, C and ESC) and in the topic manager display. The OWNERS column replaces the LAST CHANGED column until the next ESC O toggles back the last changed date display. Subsequently, ESC O alternately switches between the two modes of display. The following example shows the topic manager with the OWNERS display toggled on:

```
===== TOPIC MANAGER (H for Help) =====  
-----  
DRIVE  TOPIC NAME                OWNERS  LOCK  SIZE  USED  +  
A:      OUT-THINK USER'S GUIDE  ANNE      3   512K  85%  +
```

See the ESC L command for more details on topic owners and passwords.

ESC ESC Escape OUT-THINK to DOS

The ESC ESC command exits OUT-THINK and returns you to the operating system prompt. Before exiting, OUT-THINK prompts you to confirm that you want to exit:

```
===== Exit to DOS, OK?
```

If you type N, you stay in the topic manager. If you type Y, you exit OUT-THINK and return to the operating system.

Outline Editor

The outline editor is the heart of OUT-THINK. It provides a full-screen, interactive editor for you to conveniently create and modify outlines. The basic idea in the outline editor is to go to different locations in the outline and then do outline processing operations at those locations.

In other words, you issue commands to move the outline cursor to different titles shown on the screen. When the cursor is at the desired title, you issue a command to insert, delete, move, copy, or do some other outline processing operation at that title. Most outline editor commands take effect at the outline cursor which reflects your current location in the outline.

You can enter the outline editor in three ways:

- directly from CP/M by specifying the topic you want to edit on the OUT-THINK command line
- from the topic manager by advancing the topic cursor to the desired topic and pressing RETURN to edit that topic
- from the leaf editor by exiting from the leaf you are currently editing

From the outline editor you can:

- escape back to the operating system exiting OUT-THINK
- return to the topic manager exiting the outline editor
- go into the leaf editor by editing the current leaf

Within the outline editor you can:

- move the outline cursor (within a topic and between topics)
- alter information (i.e., insert, delete, edit, copy, move, and reorganize)
- output information (i.e., display on the screen, print, write to CP/M text files, copy to other topics)

Outline editor commands are either single key sequences, control characters, or escape sequences.

Single key commands are typed by pressing one or more single keys in sequence. You don't need to hit RETURN after these commands in the outline editor.

Control characters are typed by holding down the control key (usually labeled CTRL) while typing another key. For example, CTRL-E is typed by holding down the control key at the same time as the E key. It is like typing a shifted character.

Escape sequences are typed by first typing the ESC key (usually labeled ESC), releasing it, and then typing the second key. For example, ESC H is typed by pressing the escape key and then pressing the H key.

Outline editor commands can be grouped as follows:

Cursor Movement	CTRL-E, CTRL-X, U, D, N, P, F, L, CTRL-W, CTRL-C, CTRL-R, SPBAR, J, G
Alter Information	Y, I, ESC I, =, E T, M, DEL, ESC C, TAB, T, -
Output Information	C, X, B, E B, R, SPBAR, Q, ESC S, ESC Q, ESC P, ESC O, ESC C, TAB, T, -, ESC F
Utility Functions	H, D, ESC H, ESC T, ESC ESC, RETURN, E L, G

Note that some commands appear in several categories, e.g., mark commands like TAB and copy commands like ESC C. This is because the same commands are used to mark stems whether for outputting or deleting them and the copy commands can be used to alter an outline by reorganizing it.

When you enter the outline editor, the screen is cleared and the outline titles are shown on the screen. Indentation reflects the relationships between the titles. A title that is conceptually subordinate to another is shown indented below its parent.

IF YOU ENTERED THE OUTLINE EDITOR:	THE OUTLINE IS INITIALLY EXPANDED:	AND THE OUTLINE CURSOR IS:
from the topic manager using Jump, Go, or RETURN key commands	one level, showing the top title and one level below it	on the top title
direct from CP/M using the long form of the OT command line	one level, showing the top title and one level below it	on the top title
from the topic manager using the Lookup command	to the candidate that you accepted during the lookup	on the title of the stem you accepted during the lookup
by exiting from the leaf editor	to the same level it was expanded before you edited the leaf	on the title of the leaf you just edited

Here is an example outline editor screen:

```
+ OUT-THINK USER'S GUIDE
+ CHAPTER 1 — INTRODUCTION
+ CHAPTER 2 — BEFORE YOU GET STARTED
* CHAPTER 3 — GETTING STARTED WITH THE BASICS
* CHAPTER 4 — GETTING DOWN TO SERIOUS BUSINESS
* CHAPTER 5 — COMMAND CATALOG
* APPENDIX A — TROUBLESHOOTING
* APPENDIX B — FOR KAMAS USERS ONLY
* APPENDIX C — CONVERSION CHART — WS TO PW
: GLOSSARY
. INDEX
```

If an indented title is too long to fit on a single screen line, it is truncated at the right side of the screen. Otherwise, each title is shown in its entirety. Each title is preceded by a title character (+, *, :, or .) which indicates whether the title has a leaf or children:

- * indicates that the title has a leaf and children
- + indicates that the title has children but no leaf
- : indicates that the title has a leaf but no children
- . indicates that the title has no leaf and no children

Note that the children might not be shown on the screen if the branch is collapsed. The title character indicates that children are present and can be expanded.

There are two help screens for the outline editor commands. Type H to get one of them and ESC H to get the other.

Some commands like H and ESC H clear the screen to display information. Type Y, SPBAR, or RETURN at the “.... [Continue]?” prompt to return to the outline you are editing. Other commands display information and prompts at the bottom of the screen.

H Display Help Screen

The H command clears the screen and shows the outline editor help screen for the main outline editor commands and the title editor commands. Press Y, SPBAR, or RETURN at the “.... [Continue]?” prompt to return to the outline you were editing.

CTRL-E Go Back One Title

The CTRL-E command goes back one title regardless of its level in the outline. CTRL-E only moves the outline cursor over expanded titles. It does not affect what is expanded. If you are at the top of the screen, going back scrolls one-half screen and centers the screen on the preceding title. At the top of the outline, going back has no effect.

CTRL-X Go Forward One Title

The CTRL-X command goes forward one title regardless of its level in the outline. CTRL-X only moves the outline cursor over expanded titles. If you are at the bottom of the screen, going forward scrolls one-half screen and centers the screen on the succeeding title. At the end of the outline, going forward has no effect.

U Go Up to Parent Title

The U command goes left or up one level in the outline to the parent of the current title. If there is no parent, i.e., you are at the top of the outline, OUT-THINK beeps and does not move the outline cursor. If the parent is not shown on the screen, the program scrolls backward in the titles and centers the screen on the parent title.

D Go Down to First Child Title

The D command goes right or down one level in the outline to the first child of the current title. If the current title has no children (i.e., its title character is a . or a :) or if it has children but they are not expanded, OUT-THINK beeps and does not move the outline cursor. If the children are expanded but are not shown on the screen, i.e., you are on the last line of the screen, the program scrolls forward in the titles and centers the screen on the title of the first child.

N Go Next Title on Same Level

The N command goes to the next title that is on the same level as the current title. If the current title has no subsequent siblings (i.e., it is the last child of its parent), OUT-THINK beeps and does not change the cursor. If the next title is off the screen, the program scrolls forward in the titles and centers the screen on the next title.

P Go Previous Title on Same Level

The P command goes to the previous title that is on the same level as the current title. If the current title has no previous siblings (i.e., it is the first child of its parent), OUT-THINK beeps and does not change the cursor. If the previous title is off the screen, the program scrolls backward in the titles and centers the screen on the previous title.

F Find String (Forward in Titles)

The F command finds a specified string in the currently expanded titles starting at the current title. You must type in the character, word, or phrase that you want to find at the prompt:

==== Find what?

and then press the RETURN key. If the string is not found in the currently expanded titles, OUT-THINK beeps and does not move the cursor. If the string is found, the screen is centered on that title and the outline cursor is moved to it.

L Lookup String (in Topic Context)

The L command looks up the specified string (i.e., a word or phrase) in the topic context, i.e., the set of topics marked for searching. It is the same as the L command in the topic manager. First, OUT-THINK clears the screen and prompts you for a string to lookup:

==== Lookup What?

When you enter the word or phrase that you want to search for, OUT-THINK starts a two-phase search process starting with the topic you are currently editing and continuing in order through any topics that are marked for searching. The C command in the topic manager displays the topics in the current context so you can find out which topics will be searched and the order in which they are searched.

In the first phase of the search, OUT-THINK does a sound-alike search for the string you specified. In this phase of the search, any stem with a key that sounds like the string you specified is a candidate. First, the topic being searched is shown:

```
.... SEARCHING TOPIC: topic name
```

Each time the search changes to a new topic, this message is displayed with the new topic name.

Then, the title for each candidate stem is shown and you are given three choices:

```
title
==== Candidate (Yes,No,Focus)?
```

If you type N or SPBAR, the search is continued until the next candidate is found. If you type Y or RETURN to accept a candidate, you immediately enter the outline editor on the candidate's topic. The outline is automatically expanded down to the candidate and the outline cursor is placed on the candidate. If you type F at the "Candidate" prompt, the focus for the candidate is shown:

```
==== FOCUS ====
top title in topic
  great grandparent title
    grandparent title
      parent title
        title
```

The focus includes all the direct ancestors of the candidate. Then, the prompt:

```
==== Candidate (Yes,No,Focus)?
```

is repeated. The focus option provides more information about the candidate so you can determine if the candidate is the one you want to select.

The first phase of the search is completed when the sound-alike key search is done on all the topics in the context. This phase of the search is usually very rapid and is done in a few seconds. It relies on OUT-THINK's information retrieval features to quickly find the candidate keys in each topic.

The second phase of the search is optional and begins with the prompt:

```
==== Search All (Y,N)?
```

If you type N, the lookup is completed and you return to the outline editor at the title you were on before the lookup. If you type Y, the second phase of the search looks for the specified string in the keys, subtitles, and leafs of each topic in the context. This phase of the search must find an exact match to report a candidate (except that uppercase and lowercase distinctions are ignored). It will find the string if the string is only part of a key.

Otherwise, the second phase of the Lookup search is like the first phase. The topics are searched in order. A message is displayed each time the search changes to a new topic. For each candidate, you are given three choices: Yes, No, and Focus. If you accept a candidate, the search is ended and you enter the outline editor in the candidate's topic with the outline cursor on the candidate. If you type N, the search continues until the next candidate is found. F gives you a focus to the title of the stem where the candidate was found.

When no further candidates are found, a NOTFOUND message is displayed and you return to the outline editor on the title you were on before the lookup.

The exhaustive text search also uses rapid retrieval techniques; however, this phase of the search takes longer than the key search, since there is much more text to search through to find possible candidates.

In both phases of the Lookup command, you can abort the search by typing CTRL-C.

CTRL-W Center Screen on Title

The CTRL-W command adjusts the screen so that the current title appears in the center of the display. The screen is automatically adjusted like this during certain operations.

CTRL-C Scroll Next Outline Screen

The CTRL-C command scrolls forward one-half screen and moves the outline cursor to the title at the middle of the new screen display. If there is no next screen, the last title is moved to the center of the screen and the cursor is placed on it.

CTRL-R Scroll Previous Screen

The CTRL-R command scrolls backward one-half screen and moves the outline cursor to the title at the middle of the new screen display. If there is no previous screen, the cursor is moved to the top title.

C Collapse Entire Branch

The C command collapses the entire branch below the current title so that all text below is represented by one title on the screen. Collapsing branches also frees up space for expanding other parts of the outline. If the branch is already collapsed, the program beeps and does not do anything.

X Expand Next Level Down

The X command expands the next level down from the current title bringing into view the children of the current title. If there are no children or if the children are already expanded, the program beeps and does not do anything. If there is not enough room in your computer's memory to hold all the titles, an OLEXPFULL abend occurs and the expansion does not take place. If this happens, you can try collapsing other branches that you are no longer working on to provide room to expand the current one. Also, you can try editing the branch, hoisting it to the top of the outline.

B Expand Entire Current Branch

The B command expands the entire outline branch below the current title bringing into view all the descendants of the current title. If there are no descendants of the current title or if they are already expanded, typing B has no effect.

Y Toggle Entry of Subtitles

The Y command toggles the entry of subtitles when you insert new titles with the I command. Initially, when you insert titles, you get a prompt for a new key and then for a new subtitle. Typing Y turns off the subtitle prompt. Subsequently, typing Y switches between turning the subtitle prompt on and off. Note that the Y command only affects the subtitle prompt during inserts. If you edit a title, you always get the subtitle prompt.

The purpose of toggling off subtitle entry is to make brainstorming faster. By eliminating the prompt for subtitles, you can enter keys in rapid succession.

I Insert New Title Commands

The I command allows you to create the outline structure for the text in your topic file by inserting titles into the topic. This command displays the prompt:

==== INSERT (Down,Next)

at the bottom of the outline editor screen. If you type D or N, you can insert a new title into the outline. Typing any other key cancels the insert.

In both cases, whether you insert down or next, a blank line with an equal sign as its title character is inserted where the new title will appear and the prompt:

= NEW KEY:

is displayed at the bottom of the screen. You can press the RETURN key to cancel the insert. Otherwise, enter a word or phrase up to 31 characters long as the new key. If you make a typing error, you can use the title editor commands described with the = command to correct the errors while entering the key.

If the subtitle prompt is toggled on (see the Y command), it is displayed at the bottom of the screen:

= NEW SUBTITLE:

You can press RETURN to skip the subtitle or enter a word or phrase up to 63 characters long. Again, the title editing commands are available for correcting errors while entering the subtitle.

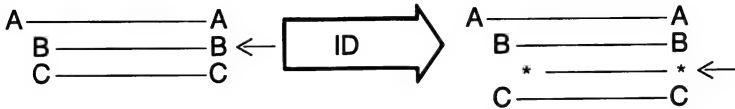
After you enter the subtitle (or after you enter the key if subtitles are toggled off), the new title is inserted. The outline cursor is left on the newly inserted title.

If there is no room for the new title in memory, you get the OLEXPFULL abend, and the insert does not take place. If there is not enough room in the topic for the new title, you get the TOPICFULL abend, and the insert does not take place.

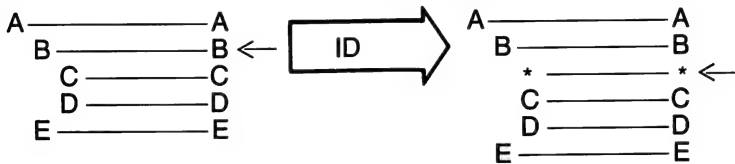
I D Insert Down

The I D command inserts a new title into the outline down from (i.e., subordinate to) the current title. If the current title already has children, the new title becomes the new first child. If the existing children are not expanded on the screen, an automatic expansion is done before the insert. If there is insufficient room for this expansion, an OLEXPFULL abend will occur, cancelling the insert.

The following diagrams show the results of some I D commands:



Result of Inserting Down from a Stem with No Children

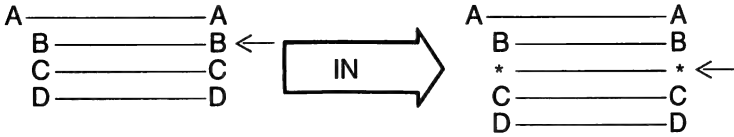


Result of Inserting Down from a Stem with Existing Children

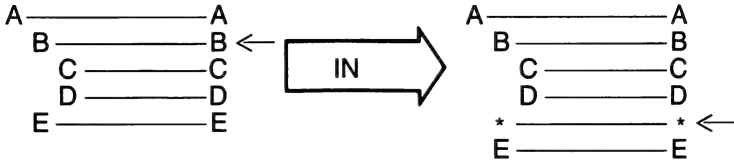
I N Insert Next

The I N command inserts a new title into the outline next from the current title. If the current title already has a next sibling, the new title becomes the new next sibling. You cannot insert next from the top of the topic; a TOPVIOL abend occurs if you try and the insert is cancelled.

The following diagrams show the results of some I N commands:



Result of Inserting Next After a Stem with No Children



Result of Inserting Next After a Stem with Existing Children

= Edit Current Title (same as ET)

The = command allows you to edit the current title. This command is identical to Edit Title (ET). On the screen, the current title is replaced by a blank line with an equal sign (=) as the title character, and the current key is displayed at the bottom of the screen for you to edit. For example, suppose the title you want to edit is “CHAPTER 4 – ALL IN A DAY’S WORK” where “CHAPTER 4” is the key and “– ALL IN A DAY’S WORK” is the subtitle, the bottom line of the screen displays the prompt:

= NEW KEY: CHAPTER 4

When you finish editing the key, the subtitle is shown on the bottom line:

= NEW SUBTITLE: - ALL IN A DAY’S WORK

In each case, the cursor blinks on the first character in the key or subtitle. You can type any of the editing commands described below to change the text.

The basic idea is to move the cursor to the text you want to change and then type in the appropriate command to change it. The title editor is always in insert mode, so just type in characters to insert them at the cursor. When editing the key, you can enter a maximum of 31 characters. When editing the subtitle, you can enter a maximum of 63 characters. If you attempt to enter more characters, the edit title command beeps and does not accept the additional characters.

CTRL-S Cursor Back (Left)

The CTRL-S command in the title editor moves the cursor left on the line.

CTRL-D Cursor Forward (Right)

The CTRL-D command moves the cursor to the right on the line.

CTRL-A Cursor to Beginning of Line

The CTRL-A command moves the cursor to the first character on the line.

CTRL-F Cursor to End of Line

The CTRL-F command moves the cursor to the last character on the line.

CTRL-G Delete Cursor Character

The CTRL-G command deletes the character where the cursor is located.

DEL Delete Previous Character

The DEL command deletes the character immediately to the left of the current character.

CTRL-Y Delete to End of Item

The CTRL-Y command deletes the cursor character and all subsequent characters to the end of the line.

CTRL-X Delete Entire Item

The CTRL-X command deletes the entire line.

CTRL-U Undo All Changes

The CTRL-U command recalls the original key or subtitle that was being edited. When you are editing a key or subtitle, the changes are made in a buffer area and the actual title is not updated until you press RETURN. Until then, you can recall the original item and start editing again.

RETURN Save New Edited Item and Exit

The RETURN command saves the new key or subtitle that you have just edited.

ESC Escape Edit with no Changes

The ESC command exits from editing the key or subtitle without saving the changes you made. The original key or subtitle is retained.

E Edit Commands

The E command displays the prompt:

```
==== EDIT (Title,Leaf,Branch)
```

at the bottom of the screen allowing you to select the current title, leaf, or branch for editing. Type T to edit the title, L to edit the leaf, or B to edit the branch. Any other key cancels the edit command.

E T Edit Title (same as =; see options above)

Typing T at the Edit prompt allows you to edit the current title. It is identical to the = command. See the = command for details.

E L Edit Leaf (same as RETURN)

Typing L at the Edit prompt enters the leaf editor on the current title. You can then use leaf editor commands to add, modify, or delete text from the leaf for that title. See the section on Leaf Editor Commands for more details. The E L command is the same as the RETURN command.

E B Edit Branch (Hoist)

Typing B at the Edit prompt causes you to remain in the outline editor with the outline cursor at the same title but with that title hoisted to the top of the outline. Thus, you are editing the branch as if it were the entire topic outline. This command is useful for narrowing your scope to a particular branch of an outline. It can also be useful in a very large outline when you cannot expand down to the desired level without getting the OLEXPFULLabend. By narrowing your focus to a particular branch, you can reduce the number of titles that have to be expanded, and you can then expand further down the outline. Use the R command to re-edit at the top of a topic (de-hoist).

R Re-Edit Outline at Top (De-hoist)

The R command re-edits the outline at the top. It is used to de-hoist an outline after editing a branch with the E B command. It is also a quick way to collapse an entire outline and then re-expand only to the current title.

M Move Commands

The M command displays the prompt:

```
==== MOVE (Left,Right,Down,Next)
```

on the bottom line of the screen allowing you to select one of the options to reorganize the text in your outline by moving titles.

There are many different ways you might want to reorganize the titles in an outline:

- Breaking up a level and making some of the stems into children of one parent while other stems remain as children of another parent
- Raising the level of a stem to make it equal with its parent, in effect promoting it
- Lowering the level of a stem to make it equal with its children, in effect demoting it
- Moving a branch to another location within a topic
- Moving the titles on a level to sort the children of a single parent according to some priority

The Move and Copy commands (See ESC C for details on copying.) allow you to reorganize an outline in just about any way imaginable. Moves must take place within a single topic while you can copy stems within or between topics.

The only operations not allowed are those that would violate the hierarchical structure. First, you are not allowed to create gaps in the hierarchy. For example, you cannot have a stem followed by its grandchildren without having an intervening child. Appropriate abends occur if you select an option that would violate this rule.

Second, the top stem in the topic is protected by these operations. The top stem in the topic outline cannot have any siblings or ancestors. You get a TOPVIOL abend if you attempt to create siblings or ancestors to the top stem, e.g., you cannot demote the top stem, you cannot promote its children, you cannot move a branch next to the top, and so on.

If you type L or R to move left or right, only the current title is moved. Titles you have marked with the TAB or T commands are not affected. Whenever you move a title, the associated text leaf is moved with it. Thus, the entire stem is moved.

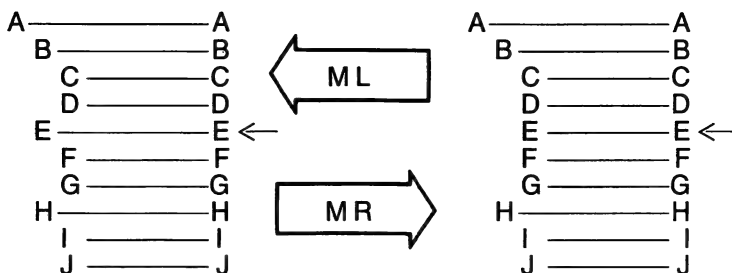
Moving down or next (by typing D or N) is a two-step process where you first select a branch by marking its top title with the TAB command. Then, you go to the destination, and, with the outline cursor located at the destination, you move the marked branch. The entire branch is moved, including all associated text leaves.

Typing any other key besides L, R, D, or N cancels the move.

M L Move Left

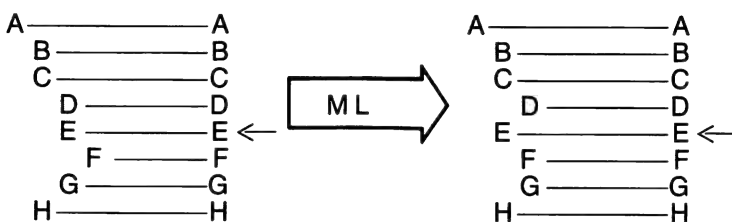
The M L command moves the current title to the left on the screen, promoting it up to the next higher level. The outline cursor remains on the title you moved.

If the title has any children, they are expanded on the screen and are promoted one level as well. In effect, the entire branch is promoted. Any subsequent siblings of the current title become its children after the move, so this command splits a level into two parts. The siblings preceding the current title remain with the old parent of the current title. The current title becomes the next sibling of its former parent. Any subsequent siblings of the current title become its children following any children it might already have. The diagrams below shown some examples of moving a title left:



Case Where Moving Left and Moving Right Are Inverses of One Another

The **ML** command is not always the inverse of the **MR** command.



Promoting a Stem With a Child — Moving Left Is Not the Inverse of Moving Right

The **Move Down** and **Move Next** options provide another way to promote branches. See **MD** and **MN** for details.

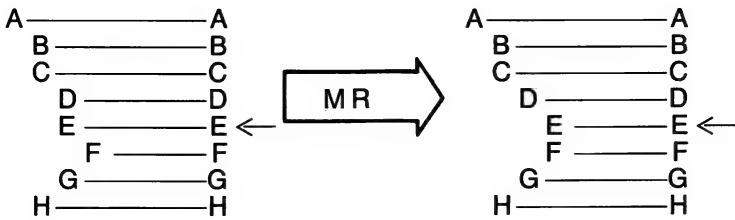
MR Move Right

The **MR** command moves the current title to the right on the screen, demoting it down to the next lower level. The outline cursor is left on the title that you moved.

If the title has any children, they are expanded on the screen, and it is changed to the same level as its children. In effect, only the single stem is demoted. After the move, the title being demoted and its children all become children of its former, previous sibling. This command combines two siblings on a level into one branch; i.e., it merges the title being demoted into the branch of its previous sibling title.

You cannot move the first child on a level to the right. Since it has no previous sibling, such a move would create a gap in the hierarchical structure, and a **BADDEMOT**abend occurs.

The following diagram shows an example of moving a title right:



Demoting a Stem With a Child

The Move Down and Move Next options provide a way to demote branches. See the M D and M N commands for details.

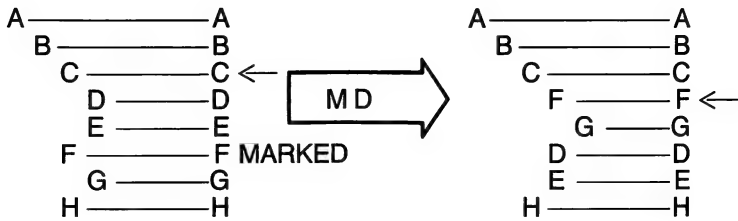
M D Move Down

The M D command moves a previously marked branch down from the current title. First, use the TAB command to mark a branch for a move. Only mark the single title at the top of the branch to be moved. If any other titles have been marked (with the T command), you get a BADSELECTabend and the move is cancelled. Then, go to the destination and type the move down command to move the marked branch.

The destination must be in the same topic as the marked branch. You cannot move across topic boundaries. The outline cursor remains on the title at the top of the branch you moved.

When you move a branch down, the current title acquires a new set of descendents, i.e., the branch that was previously marked. If the destination title already has children, the marked branch is inserted ahead of the first child. If the children are not expanded, they must be expanded before the move. If there is insufficient room to expand these children, an OLEXPFULLabend will occur, cancelling the move. If the destination has no children, the marked branch becomes the only child of the destination title.

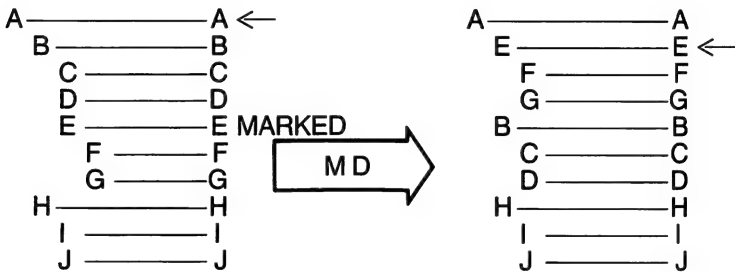
In addition to simply rearranging an outline, the move down command provides a way for you to demote an entire branch. You can select a branch, go to its previous sibling and move down thereby inserting the branch ahead of the first child of the previous sibling:



**Result of Moving a Branch Down When Destination
Already Has Children — An Implicit Demote Is Included**

See the M N command for a similar demote.

You can also achieve a promote branch with the M D command by going up to the grand-parent of a marked branch. Then, moving down, in effect, promotes the previously marked branch:



Moving Down to Obtain a Promote Branch

You cannot move a marked branch into itself; a TREEINVERTabend occurs if you try. The destination must be in a different branch of the outline. Try to break up the branch using Move Left or Move Right commands before attempting the branch operation. In other words, break up the branch into two separate branches and move one into the other.

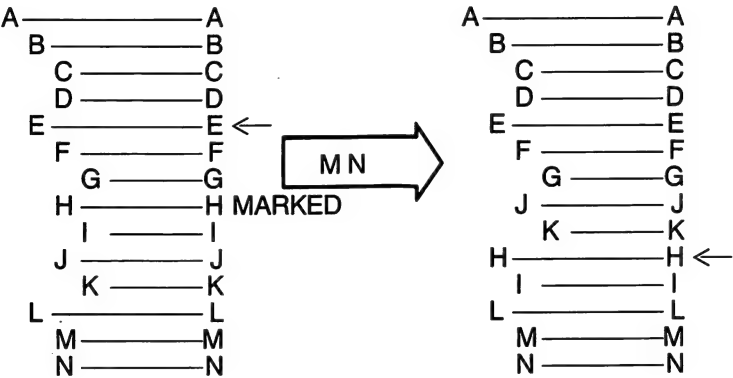
M N Move Next

The M N command moves a previously marked branch next to the current title. First, use the TAB command to mark a branch for a move. Only mark the single title at the top of the branch to be moved. If any other titles have been marked (with the T command), you get a BADSELECTabend and the move is cancelled. Then, go to the destination and type the move down command to move the marked branch.

The destination must be in the same topic as the marked branch. You cannot move across topic boundaries. The outline cursor remains on the title at the top of the branch you moved.

When you move a branch next, the current title acquires a new sibling, i.e., the branch that was previously marked. If the destination title already has a subsequent sibling, the marked branch is inserted ahead of that title.

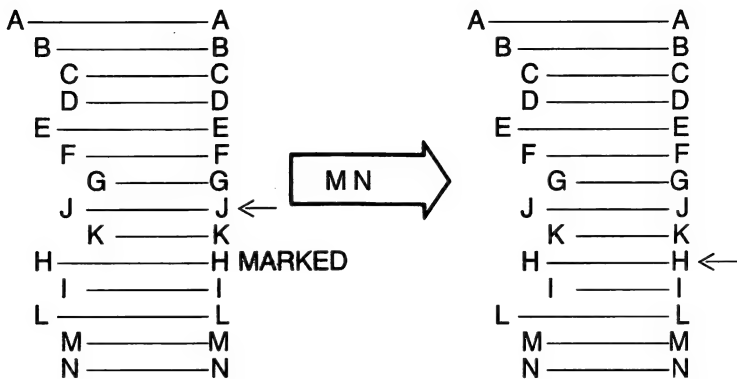
In addition to simply rearranging an outline, the move next command provides a way for you to promote and demote a branch. You can select a branch, go to its parent and move next thereby slipping the branch out from its current location and moving it after its former last sibling. The branch is promoted so it becomes a sibling of its former parent. However, all its former siblings remain children of its former parent. The marked branch is pulled out and given more significance by raising its level relative to its former siblings:



Promoting a Branch by Moving it Next to its Former Parent

Compare this to the Move Left promote.

You can demote a branch with the move next command by marking a branch and then going to the last child of its previous sibling. Then, move next to achieve the following result:



Demoting a Branch by Moving it Next to the Last Child of its Former Sibling

You cannot move a marked branch next to itself; such an operation does nothing.

TAB Mark Current Branch

The TAB command marks the current title leaving the outline cursor on the marked title. It also un-marks any other marked titles so that only the current title is marked. Titles can be marked for printing, copying, deleting, writing to an output file, and moving. When you mark a title, the dash character (–) appears on the screen in the blank space between the title character and the title.

The T command also marks titles but it permits multiple titles to be marked for mark and gather type operations (i.e., copy marked, print marked, outfile marked, and delete marked). The TAB command is more convenient for marking single branches for subsequent move down and move next commands.

Marked titles can be unmarked implicitly by certain operations. For example, if you do anything that collapses a branch containing marked titles, those titles are unmarked by the collapse. (Note: some commands like Lookup and Delete may do a collapse implicitly.) If you do any of the marked commands (print, copy, delete, outfile, or move), the marked titles are also unmarked.

If you do anything that switches to another topic, all marked titles are unmarked, except in the case when you are going to copy a branch to another topic. (Note: some commands like Lookup may implicitly switch topics.) In this case, only one title is marked when you switch to the destination topic. That single title is remembered by OUT-THINK for the subsequent branch copy.

However, even in the case of a branch copy, certain intervening operations will unmark any marked branches. For example, if any one of the following things happens before you do the branch copy, the previously marked branch is unmarked:

- if you kill any topic
- if you do a new context command
- if you edit a leaf
- if you get anyabend
- if you delete any stem
- if you resize or do a copy extract

It is recommended that once you mark a branch, you should go immediately to the destination topic and do the branch copy with a minimum of intervening operations.

You can use the lookup command to switch to the destination topic, and you can visit any number of other topics before you get to the destination. Once you do the branch copy, the marked branch is automatically unmarked.

See the `—` command for unmarking marked titles. Also, see the `T` command for another way to mark titles.

T Mark Current Stem

The `T` command marks the current title and goes forward one title regardless of its level in the outline. If the current title is already marked, the `T` command simply goes forward one title, the same as the `CTRL-X` command. Titles can be marked for printing, copying, deleting, writing to output files, and moving. When you mark a title, the dash character (`—`) appears on the screen in the blank space between the title character and the title.

The `TAB` command also marks titles but it permits only one title to be marked at a time, unmarking any other marked titles. The `T` command accumulates marked titles for mark and gather type operations (i.e., copy marked, print marked, outfile marked, delete marked), permitting multiple titles to be marked at once.

Marked titles can be unmarked implicitly by certain operations as described in the `TAB` command.

See the `—` command for unmarking marked titles. Also, see the `TAB` command for another way to mark and unmark titles.

— Unmark Current Stem

The `—` command unmarks the current title and moves the outline cursor forward one title regardless of its level in the outline. If the current title is not marked, the `—` command simply moves forward one title, the same as the `CTRL-X` command.

A dash character (`—`) on the screen in the space between the title character and the title indicates a marked title. When you unmark such a title, the dash character is replaced by a space.

Marked titles can be unmarked implicitly by certain operations as described in the `TAB` command.

DEL Delete Commands

The DEL command displays the prompt:

```
===== DELETE (Stem,Branch,Marked)
```

on the bottom line of the screen. Type S to delete the current stem, B to delete the current branch, or M to delete marked stems. Any other key cancels the delete. There is no way to recover the information after it has been deleted. Therefore, this command prompts before actually deleting the stems. Typing Y continues with the delete; N or ESC cancels without deleting anything.

The DEL commands can be combined with the copy commands to move stems between topics. The move commands take effect within a single topic and there is no single move command for moving between topics. However, you can copy between topics and then delete the copied stems from the source topic, in effect, moving them.

DEL S Delete Stem

The DEL S command displays the prompt:

```
===== Delete Stem? (Yes,No,All,ESCApe)
```

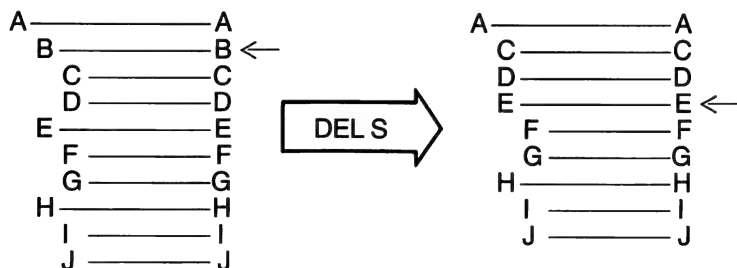
at the bottom of the screen. It also automatically does the TAB command on the current title marking it and unmarking any other currently marked titles.

If you type N, the current title is unmarked and the delete is cancelled.

If you type ESC, the delete is cancelled but the current title stays marked.

If you type Y or A, the current stem is deleted. The outline cursor is left on the following title regardless of outline level. If the last stem in the outline is deleted, the outline cursor goes to the top of the outline.

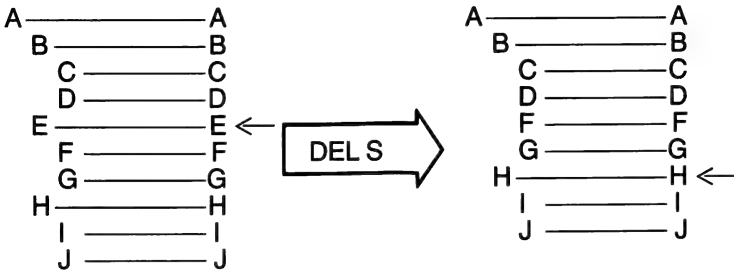
If the deleted stem was the first child on a level and it had children, an implicit level promote is done before the stem is deleted. Each child is promoted one level filling the gap left by its deleted parent as illustrated in the following diagram:



Result of Deleting a Stem that Is the First on a Level

The children have to be expanded to complete this promote. If there is insufficient room for the expansion, an OLEXPFULL abend will occur, in which case, the delete will not take place. After the delete occurs, the parent is collapsed first and then expanded one level.

If the deleted stem is not the first child on a level and it had children, its children are attached to the last child of the previous stem as illustrated in the following diagram. If the previous stem has no children, it acquires the deleted stem's children as its only children.



Result of Deleting a Stem that Is Not First on a Level

In this case, the children of the deleted stem are not promoted. However, they are still expanded, which may cause an OLEXPFULL abend and cancellation of the delete as described above. After the delete, the previous stem is collapsed first and then expanded one level.

DEL B Delete Branch

The DEL B command displays the prompt:

==== Delete Entire Branch, OK?

at the bottom of the screen. If you type N or any key except Y, the delete is cancelled. If you type Y, the entire current branch is deleted. All titles and stems are permanently erased from the topic. There is no way to recover the text from the delete. The outline cursor is left on the next title shown on the screen after the current branch. If the last branch in the outline is deleted, the cursor goes to the top title.

This command must take the time to re-index the outline when the delete is done. A "Working" message is displayed until the delete is complete.

DEL M Delete Marked

The DEL M command goes to each marked title and does the DEL S command for each one. It displays the prompt:

==== Delete Stem? (Yes,No,All,ESCAPE)

at the bottom of the screen for each marked title.

If you type ESC, the delete is cancelled but the current title stays marked as well as any other marked titles. You can cancel at any point — at the start, after deleting some stems, or after deleting some and skipping some.

If you type N, the current stem is not deleted. It is unmarked and skipped. At the next marked stem, the prompt is repeated.

If you type Y, the current stem is deleted as described in the DEL S command. Then, the command goes to the next marked title and repeats the prompt.

If you type A, the current stem and all subsequent marked stems are deleted as described in the DEL S command without any further prompting.

The outline cursor is left on the title following the most recently deleted stem regardless of outline level. If the last stem in the outline is deleted, the outline cursor goes to the top of the outline.

Q Display Leaf of Current Title

The Q command queries the current title. The screen is cleared and the entire stem is shown, including any text leaf. Type Y, SPBAR, or RETURN at the "... [Continue]?" prompt to continue and return to the outline editor after the leaf is shown.

SPBAR Display Leaf and Go Forward

The SPBAR command queries the current stem and then goes forward one title regardless of outline level. In effect, SPBAR combines the Q command with the CTRL-X command.

RETURN Edit Leaf of Current Title (same as EL)

The RETURN command enters the leaf editor on the current title. You can then use leaf editor commands to add, modify, or delete text from the leaf for that title. See the section on Leaf Editor Commands for more details. The RETURN command is the same as the E L command.

J Jump to Edit Topic by Name

The J command jumps to edit the outline of the topic you specify by name and provides a way for you to switch to another topic without having to escape to the topic manager. This command is the same as the J command in the topic manager. You can also switch to another topic by going to the topic with the G command.

When you type J, the following prompt is displayed:

==== Edit What Topic:

at the bottom of the screen. Type in the name of the topic that you want to edit and press the RETURN key. You then enter the outline editor on the topic that you specified. If the topic cannot be found, you get a NOTFOUND abend and remain in the outline editor for the current topic.

You can precede the topic name with an optional drive designator to force the search to that drive. Otherwise, the current drive search path is used.

G Go to Edit Topic (Show List)

The G command clears the screen, displays the list of available topics, and edits the outline of the topic you specify by name. It provides a way for you to edit a topic without having to escape to the topic manager. This command is the same as the G command in the topic manager. You can also switch to another topic by jumping to the topic with the J command.

When you type G, the list of currently available topics is displayed in the same format as in the topic manager list:

```
==== TOPIC LIST ====
DRIVE  TOPIC NAME                LAST CHANGED  LOCK  SIZE  USED
A:     OUT-THINK USER'S GUIDE  85-09-01 16:46    3   512K  85%  <-
A:     HELP                    85-08-25 23:37    0    44K  95%  +
A:     READ ME FIRST BOOKLET  85-09-26 16:46    0    80K  10%  -
==== Edit What Topic:
```

The "<-" indicates the last topic that was edited. Type in the name of the topic that you want to edit and press the RETURN key. You then enter the outline editor in the topic that you specified. If the topic cannot be found, you get a NOTFOUNDabend and remain in the outline editor in the current topic.

You can precede the topic name with an optional drive designator to force the search to that drive. Otherwise, the current drive search path is used.

The only difference between the G and J commands is that the G command shows the list of available topics before prompting you for the one you want to edit while the J command relies on you to remember the name of the topic you want to edit. The J command is quicker since you don't have to wait for the topic list to be displayed.

The G command is a convenient way to list all the topics while in the Outline Editor. If you just press RETURN at the "Edit What Topic:" prompt, you return to the Outline Editor exactly as you were before you issued the G command.

ESC Additional Options

The ESC command displays the prompt:

```
==== ESC (Help,Show,Query,Format,Print,Outfile,Infile,Copy,Dir,Topmgr,ESCape)
```

at the bottom of the screen. You can type the appropriate first letter (H, S, Q, F, P, O, I, C, D, T, or ESC) to select the corresponding option. Any other key (e.g., RETURN) cancels the operation.

The ESC H command shows a full screen list of all the options available in the extended set of outline processing commands. Most of these commands allow you to exchange information in your outline files by inputting and outputting (printing and writing to files). The ESC commands allow you to output information to:

- the display screen (Show and Query)
- the printer (Print)
- a text file (Outfile)
- another topic file (Copy)

The additional outline processing commands also allow you to:

- set up formatting options obeyed by most of the output commands (Format)
- to insert (i.e., read) an existing text file into a topic (Infile)
- to create templates to use within a topic (Copy)
- to escape to the topic manager (Topicmgr) or to CP/M (ESC)

The Show and Query options are very similar; both display the outline on the screen without document formatting. With Show options, you can display the topic file that you are currently editing relative to the current title. The Query options prompt you for a key. You can enter any key from any topic that has been marked for searching in the current context. Then, the query option displays that topic relative to the key that you specified.

In both cases, you return to the current title in the outline where you were located before you displayed information on the screen. Both sets of commands provide you with different perspectives on the outline. Some of them allow you to show the outline structure in different ways without any text leafs. By dealing with the structure separately from the content, you can maintain an overview on the document you are writing and see the forest without being distracted by the trees.

The Print and Outfile options are also similar to one another. Both produce formatted output and both automatically do the ESC F A command before printing or writing to a file.

The Print and Outfile options differ from Show and Query in that the former pair produce formatted output obeying format switches and format parameters while the latter pair do not obey formatting.

ESC S Show Commands

The ESC S command shows information on the display screen in the topic you are currently editing relative to the current title. First, it displays the prompt:

```
===== ESC SHOW (View,Focus,Keys,Titles,Branch)
```

You can type the appropriate first letter (V, F, K, T, or B) to select the corresponding option. Typing any other key (e.g., RETURN) cancels the show command.

In all the options you can select, the screen is cleared and the information is displayed. At the end, you get the "... [Continue]?" prompt; press any key to return to the outline editor at the current title.

The ESC S commands do not obey any of the formatting parameters that you set with the ESC F A command, nor do they obey the individual format switches that you set on stems. If you wish to display the formatted outline on the screen, use the preview feature of the ESC P command.

ESC S V Show Current View

The ESC S V command shows the view of the keys around the current key. You can use this command to show the neighborhood surrounding the current key.

The neighborhood consists of keys from a pre-set level above the current key to a pre-set level below the current key. The range of levels shown above and below the current key are determined by the setting for the view levels. Using topic manager commands, you can change the view level up and the view level down to encompass a wider range in the display. The default setting of one level above and one level below the current title shows the current key, its siblings, its immediate parent, and its immediate children.

The view command clears the display and shows the line:

```
==== VIEW NEAR: '<key>' ====
```

where the key is shown within single quotes. Then, it shows the keys in the view using indentation to indicate the levels. Every key in the view is shown in the format:

```
<key> <format codes> <title character> <% full> <timestamp>
```

The format codes are single character codes that indicate what format switches you have set using the ESC F commands:

Code	Format
H	title is set hidden or invisible
P	stem is set to start on a new page
L	stem is set for left justified text leaf
F	stem is set for full justified text leaf
V	stem is set for no justification (i.e., verbatim)

See the ESC F commands for details on the format switches. The title character is the same as the title character for that stem in the outline editor:

*	stem has a leaf and has children
+	stem has children but no leaf
:	stem has a leaf but no children
.	stem has no children and no leaf

The % full shows how full the leaf is. If there is no leaf, it is 0% full. The timestamp shows the date and time that the leaf was last edited.

An arrow "<---" points to the current key in the outline.

For example:

```
===== VIEW NEAR: 'ESC S V Show Current View' =====
ESC S Show Commands  PF*  22%  85-09-16 12:43
  ESC S V Show Current View  V*  98%  85-09-16 13:58 <--
    More on the View Command  H:  32%  85-09-16 13:58
  ESC S F Show Current Focus  L:  25%  85-09-17 10:03
  ESC S K Show Keys in Branch V+  0%  85-09-17 10:03
  ESC S T Show Titles in Branch V. 0%  85-09-17 10:03
  ESC S B Show Text in Branch  V. 0%  85-09-17 10:03
  ESC S O Show Outline in Branch V. 0%  85-09-17 10:03
.... [Continue]?
```

The "<--" points to the current key; the top key is set to start a new page and its leaf will be full justified. The leaf of the current key is verbatim, i.e., no justification is set for the leaf. The title of the key "More on the View Command" is set hidden, so it will not be shown during output commands. The "ESC S F Show Current Focus" key is set left justified. The others are formatted verbatim with no page or hide switches set and no leaves. Note that the "ESC S K Show Keys in Branch" key has children but they are not shown. Only the immediate children of the current key are shown when using the default view range (i.e., 1 up and 1 down). See the ESC V command in the topic manager to change the view range.

Type Y, SPBAR, or RETURN at the ".... [Continue]?" prompt to return to the outline editor on the current title.

ESC S F Show Current Focus

The ESC S F command shows a focus to the current key. All the ancestor keys of the current key are shown in an indented format with the current key shown in angle brackets. The arrow "<--" points to the current key. First, this command clears the screen and displays the line:

```
===== FOCUS TO: 'ESC S F Show Current Focus' =====
```

Then, the ancestors are shown. For example:

```
OUT-THINK USER'S GUIDE
  CHAPTER 5
    Command Reference
      Outline Editor
        ESC Additional Options
          ESC S Show Commands
            <ESC S F Show Current Focus> <--
.... [Continue]?
```

Type Y, SPBAR, or RETURN at the ".... [Continue]?" prompt to return to the outline editor on the current title.

ESC S K Show Keys in Branch

The ESC S K command clears the screen and shows the current key with all its descendents, i.e., all the keys in the current branch of the outline. This command shows the keys in the same format as the ESC S V view command. For example:

```
==== KEYS IN BRANCH: 'ESC S Show Commands' ====
ESC S Show Commands  PF*  22%  85-09-16 12:43 <--
  ESC S V Show Current View  V*  98%  85-09-16 13:58
    More on the View Command  H:  32%  85-09-16 13:58
  ESC S F Show Current Focus  L:  25%  85-09-17 10:03
  ESC S K Show Keys in Branch  V.  0%  85-09-17 10:03
  ESC S T Show Titles in Branch  V.  0%  85-09-17 10:03
  ESC S B Show Text in Branch  V.  0%  85-09-17 10:03
  ESC S O Show Outline in Branch  V.  0%  85-09-17 10:03
.... [Continue]?
```

Type Y, SPBAR, or RETURN at the “.... [Continue]?” prompt to return to the outline editor on the current title. See ESC S V for details on the format of the display.

ESC S T Show Titles in Branch

The ESC S T command clears the screen and shows all the titles in the current branch. For example:

```
CHAPTER 2 — BEFORE YOU GET STARTED
  A Few Words to the Wise
  A Few Words to the Un-Wise
  Conventions Followed in the User's Guide
.... [Continue]?
```

Type Y, SPBAR, or RETURN at the “.... [Continue]?” prompt to return to the outline editor located on the current title.

ESC S B Show Text in Branch

The ESC S B command shows the entire current branch, including titles and leafs, as a document. The display does not obey the formatting switches, i.e., hidden titles are shown, and leafs that are marked for left or full justification ignore both margin settings. The text in the branch is shown as if the left margin were 0 and all the stems were verbatim. No indentation is used.

ESC Q Query Commands

The ESC Q command shows information that you request on the display screen relative to a search key that you specify. The entire current topic context is searched. First, the ESC Q command displays the prompt:

```
==== ESC QUERY (View,Keys,Titles,Stem,Branch,Context)
```

You can type the appropriate first letter (V, K, T, S, B, or C) to select the corresponding option. Typing any other key (e.g., RETURN) cancels the query command.

For all the options except Context, the query command prompts you for a key:

==== Key:

You type in any key in any topic that is currently marked for searching. The query command then searches for a key that sounds like the one you specified. If you don't type a key and just press RETURN, the query is cancelled and you go back to the outline editor located on the current title.

After you type a key, the first phase of the query command behaves like the first phase of the Lookup command. See the Lookup command for details. The topics are searched in order. A message is displayed each time the search changes to a new topic. For each candidate, you are given three choices: Yes, No, and Focus. If you accept a candidate, the search is ended and you get the query you selected relative to that stem (e.g., if you selected the view, you get a view relative to the candidate you selected). If you type N (No), the search continues until the next candidate is found. Typing F (Focus) gives you a focus to the candidate title.

In all the query options you can select, the information is displayed for the candidate that you accept. At the end, you get the "... [Continue]?" prompt; press Y, SPBAR, or RETURN to return to the outline editor at the current title.

The ESC Q commands do not obey any of the formatting parameters that you set with the ESC F A command, nor do they obey the individual format switches that you set on stems. If you wish to display the formatted outline on the screen, use the preview feature of the ESC P command.

ESC Q V Query View

The ESC Q V command prompts you for a key and does a lookup on the key you specify. If you accept a candidate from the lookup, it shows you a view of the neighborhood relative to that candidate. The candidate is shown enclosed in angle brackets. If the current key is included in the view, an arrow "<---" points to it. Otherwise, the neighborhood view is the same as the Show View command. See the ESC S V command for details.

ESC Q F Query Focus

The ESC Q F command prompts you for a key and does a lookup on the key you specify. If you accept a candidate from the lookup, it shows you a focus to that candidate. The candidate is shown enclosed in angle brackets. If the current key is included in the focus, an arrow "<---" points to it. Otherwise, the query focus is the same as the Show Focus command. See the ESC S F command for details.

ESC Q K Query Keys

The ESC Q K command prompts you for a key and does a lookup on the key you specify. If you accept a candidate from the lookup, it shows you all the keys in the branch of that candidate. The candidate is shown enclosed in angle brackets. If the current key is included in the branch, an arrow "<---" points to it. Otherwise, the key query is the same as the Show Keys command. See the ESC S K command for details.

ESC Q T Query Titles

The ESC Q T command prompts you for a key and does a lookup on the key you specify. If you accept a candidate from the lookup, it shows you all the titles in the branch of that candidate. The title query is the same as the Show Titles command. See the ESC S T command for details.

ESC Q S Query Stem

The ESC Q S command prompts you for a key and does a lookup on the key you specify. If you accept a candidate from the lookup, it shows you the stem for that candidate. The ESC Q S command is like the outline editor Q command. See the Q command for details.

ESC Q B Query Branch

The ESC Q B command prompts you for a key and does a lookup on the key you specify. If you accept a candidate from the lookup, it shows you the entire branch of that candidate, including titles and leafs. The branch query is the same as the Show Branch command. See the ESC S B command for details.

ESC Q C Query Context

The ESC Q C command is different from all the other query commands. Instead of prompting you for a key, it displays the prompt:

==== Query for:

at the bottom of the screen. If you don't type anything and just press RETURN, the query is cancelled and you go back to the outline editor. If you enter a word or phrase, this command finds all matches in the topic context. Upper and lower case distinctions are ignored when determining matches.

The query context command is similar to the Lookup string command except that it does not pause at each candidate and allow you to accept the candidate like the lookup command does. Instead, after showing one candidate, it continues searching for the next candidate. It is as if you ran the Lookup command and typed N for every candidate. See the L command for details.

The first phase of the query context is a sound alike search for a key that sounds like the one you entered. Then, the second phase of the search lists all strings in titles and leafs that match the one you specified. The title for each candidate is shown. A message is displayed at the start of the key search:

==== SEARCHING FOR KEY: 'word/phrase' =====

And each time a topic is searched:

.... SEARCHING TOPIC: topic name

And before the title/leaf search begins:

==== SEARCHING FOR STRING: 'word/phrase' ====

You can type CTRL-C at any time to abort the search and return to the outline editor.

See the ESC P Q command for a way to print out the context query.

ESC F Format Commands

The ESC F commands let you set format switches on individual stems or branches as well as allowing you to set global formatting parameters obeyed by all stems during formatted output operations, e.g., setting margins for printing. When you type ESC F, the following prompt appears at the bottom of the screen:

==== ESC FORMAT (Left,Full,Verbatim,Page,Hide,Clear,Branch,Assign)

You can type the appropriate first letter (L, F, V, P, H, C, B, or A) to select the corresponding option. Typing any other key (e.g., RETURN) cancels the format command, and returns you to the outline editor.

The Justification switch can be set to one of three values to control the justification on individual stems: left justification (the default for new stems), full justification, and verbatim (i.e., no justification).

Two other format switches (hide and page) allow you to hide titles on stems or to set page breaks on stems.

The format switches for justification are mutually exclusive; you cannot set left and full and verbatim on a single stem; however, the switch for page breaks and the switch for hidden titles can be combined with any other switches. You can show the current format switch settings with the ESC S commands and the ESC Q commands, i.e., ESC S V, ESC S K, ESC Q V, and ESC Q K. See these commands for more details.

The Assign option is used to set global formatting parameters such as margins and indentation. OUT-THINK automatically does the ESC F A command whenever you print using the ESC P command or write to a file using ESC O.

To do formatted output, you should first set any desired formatting switches on individual stems and then type the desired formatted output command (ESC P or ESC O). Then change any formatting parameters needed and output your outline.

ESC F L Format Stem Left Justify

The ESC F L command sets the justify format switch on the current stem to left. Stems formatted for left justification obey both the left and right margin settings during formatted output. However, text is output ragged right within the right margin. The left justify switch is set as the default on newly created stems. The left justify switch replaces the previous justify switch.

The left justify switch can be cleared by setting the justify switch to full or verbatim.

ESC F F Format Stem Full Justify

The ESC F F command sets the justify format switch on the current stem to full. Stems formatted for full justification obey both the left and right margin settings during formatted output. Text is output in rectangular boxes between the two margins. The right margin is justified by adding spaces in the line to make the right margin even or straight. The full justify switch replaces the previous justify switch.

The full justify switch can be cleared by setting the justify switch to left or verbatim. Also, the ESC F C command sets the stem to left justify.

ESC F V Format Stem Verbatim

The ESC F V command sets the justify format switch on the current stem to verbatim. On output, verbatim stems appear exactly as they appear in the leaf except that the left margin is always obeyed. If a line is longer than the right margin, it will print beyond your right margin setting. In other words, the right margin is not obeyed. If it is offset from the left margin in the leaf, it will print offset from the left margin. Use verbatim text when you have tabular material, or charts that are indented, or any material that is typed with extra spaces in it.

The verbatim justify switch can be cleared by setting the justify switch to left or full. Also, the ESC F C command sets the stem to left justify.

ESC F P Format Stem with Page Break

The ESC F P command sets the page break format switch on the current stem. The page break switch can be set on or off. Formatted output commands start a new page when they reach a stem with this switch set. Page formatting is obeyed by the printing commands. This switch can be set in combination with any other switch.

The page break switch can be turned off with the ESC F C command.

ESC F H Format Title Hidden

The ESC F H command sets the hidden title format switch on the current stem. This switch can be set on or off. When the stem set for a hidden title is encountered during a formatted output command, the title is not shown. The hidden title is skipped, but the stem's leaf is output. Use hidden titles when your material is too large to fit in a single leaf, but it all belongs under a single title. The hidden title switch can be combined with any other switch.

The hidden title switch can be turned off with the ESC F C command. Also, see the branch formatting commands (ESC F B) to format entire branches at once.

ESC F C Format Stem Clear

The ESC F C command resets all format switches on the current stem to their default values. The stem is formatted for left justified output, and hidden titles and page breaks are turned off.

See the ESC F B command for clearing an entire branch.

ESC F B Format Branch

The ESC F B command displays the prompt:

==== FORMAT BRANCH (Left,Full,Verbatim,Hide,Clear)

at the bottom of the screen. You can type the appropriate first letter (L, F, V, H, or C) to set format switches on the entire current branch as specified. You can select L to left justify every stem in the branch, F to full justify every stem in the branch, V to set no justification (i.e., verbatim) on every stem in the branch, H to hide the titles on every stem in the branch, and C to reset the format switches to their defaults on every stem in the branch. The default settings are left justified with page breaks turned off and hidden titles turned off.

See the ESC F C command to clear formatting on individual stems.

ESC F A Assign Format Parameters

The ESC F A command allows you to set global formatting parameters like margins and page size. The formatted output commands (ESC P and ESC O) obey these global parameters in addition to the formatting switches set on individual stems. Different output commands obey different parameters. See the specific output command for details on which parameters the command obeys.

The ESC F A command displays the current values for all the formatting parameters and then prompts to allow you to change any value:

```
===== FORMAT PARAMETERS =====  
A   # Lines Per Page: 66  
B   Left Margin: 4  
C   Right Margin: 72  
D   Line Spacing: 1  
E   Indent Size: 2  
F   Section # Depth: 3  
G   Table of Contents Depth: 3  
H   Output Depth: 16  
I   Use Expanded Outline? NO  
J   Stop Before Page? NO  
K   # Copies: 1  
L   WordStar Output? NO  
M   Headers & Footers? YES  
N   Rotate Headers & Footers? NO  
O   Title in Header? NO  
P   Header:  
Q   Date in Footer? YES  
R   Footer:  
S   Page # in Header? YES  
T   Page # in Footer? YES  
U   Page # Prefix: Page  
V   Starting Page #: 1  
===== Type Letter of Item to Change; RETURN for No Change:
```

Press the single key for the letter of the value you want to change (upper or lower case); do not type the RETURN key after it. The item you want to change is then displayed and you can enter a NEW value at the prompt. Some of the parameter values are strings and you must press RETURN to enter them. Others are Yes/No switches and you only press the Y or N key to change them to the alternate state. The format assign command then displays all the values again allowing you to make another change. When you have finished changing items, press the RETURN key at the prompt:

```
===== Type letter to change an item or RETURN for no change:
```

to continue.

The format parameters can be grouped as follows:

- parameters to control the placement of text on the page (lines per page, margins, line spacing, and indent size)
- parameters to control the amount of detail that is printed or written to a file (section number depth, table of contents depth, output depth, and use expanded outline)
- parameters to control the headers and footers (headers & footers, rotate headers and footer, title in header, header, date in footer, footer, page number in header or footer, page number prefix, and starting page number)
- miscellaneous parameters to control the number of copies, to select WordStar output when writing to a file, and to pause before each page when printing

If you get an abend when entering values, the assign command is terminated and you are returned to the outline editor. In most cases if you enter an invalid value, the item you were trying to change is restored to its default value and a BADPARAM abend occurs.

Note that some of the parameters override other parameters. For example, Titles in Header? overrides the fixed string that you specify for a header as well as the Page Number in Header? parameter. Both of the two latter parameters are ignored if you select Titles in Header. Likewise, Date in Footer? overrides the fixed string that you specify for a footer. The Footer string is ignored if you select the Date in Footer.

The global formatting parameters are described below with the default values shown in parentheses.

- | | |
|------------------------------------|---|
| # Lines Per Page (66) | The number of lines per page can be set from 25 to 65535. Set this value for your paper size. For example, if your printer is set for 6 lines per inch, use 66 for 11 inch paper. If your printer is set for 8 lines per inch, use 88 for 11 inch paper. OUT-THINK automatically allows about 3 lines for the header and 3 for the footer (even if you do not use headers and footers) so the printer will skip over the perforation. You can also set the page size to 0 to turn paging off (e.g., for printing over the perforation or for printing on rolls of paper). |
| Left Margin (4) | The left margin is obeyed by any stems with the following format switches set: left justified, right justified and verbatim stems. The value must be between 0 and 95. The difference between the left and right margins must be greater than or equal to 32. |
| Right Margin (72) | The right margin is obeyed by any stems with the following format switches set: left justified and right justified stems. The value must be between 32 and 128. The right margin must be greater than the left margin. The difference between the left and right margins must be greater than or equal to 32. |
| Line Spacing (1) | The line spacing parameter determines the number of blank lines to put between printed lines during formatted output. Set the line spacing to 1 for single spaced output; to 2 for double spaced output; to 3 for triple spaced; and so on. 0 is an invalid value for line spacing. |
| Indent Size (2) | The indent size is the number of spaces used for indentation. To turn off indentation, set this parameter to 0. If you set the indent size to a large value, your outline may run off the right side of the page when printing. |
| Section # Depth (3) | You can control the relative level of the titles that are preceded by section numbers. Section numbers (e.g., 1.1.2) are generated down to the level specified relative to the title where you begin printing or output. The stems at a lower level of the outline will not have section numbers. |
| Table of Contents Depth (3) | You can control the level of the outline that appears in the Table of Contents. Table of Contents entries are generated only down to the level specified. To turn off the Table of Contents (i.e., not have a table of contents), set this value to 0. |

Output Depth (16)	You can control the relative level of the outline that is printed or output. The outline is printed or output only down to the level specified relative to where you begin. Any stems at a lower level are not printed or written.
Use Expanded Outline? (NO)	If you set this option by typing Y for YES, then only the parts of the outline that have been expanded by the outline editor will be printed or output. This option gives you a more refined control over the scope of the outline than just controlling the depth. You can print or output down to one level in one branch and a different level in a different branch. You must make sure to expand only those portions of the outline you want prior to performing a formatted output command.
Stop Before Page? (NO)	The stop parameter determines whether you pause before every page break or print continuously. Type Y to set this option to YES if you have to feed each sheet into your printer individually. Otherwise, if you have formfeed paper, leave the value at its default value of NO.
# Copies (1)	You can control the number of copies printed by setting this parameter. This setting is ignored when previewing printed output and when writing to a file.
WordStar Output? (NO)	If WordStar output is selected, a WordStar document type file is generated on file output. If this parameter is set to No, then all formatted file output is produced in a standard ASCII text file (treated as a "non-document" text file in WordStar).
Headers & Footers? (YES)	Type N to turn off headers and footers. Otherwise, be sure to set the following parameters to the desired values so headers and footers print the way you want them. The header is never printed on page 1. If you set the start page number to 0, the footer is not printed on the first page either. That way, the top stem can contain a title page with no header or footer. If headers and footers are turned off, all of the following parameters are ignored.
Rotate Headers/ Footers (NO)	If you set this parameter by typing Y, the headers and footers rotate on odd and even pages.
Title in Header? (NO)	If you set this parameter by typing Y, the most recent level 1, 2, or 3 title is shown in the header. This parameter overrides the fixed string that you can specify for a header as well as page numbers in the header.
Header ("current topic name")	The header parameter lets you enter any string to be used as the header. The default is the current topic name. This parameter is overridden by selecting Title in Header.

Date in Footer? (YES)	The current date and time is printed in the footer unless you type N to turn it off. This parameter overrides the fixed string you can specify for a footer so be sure to turn the Date in Footer off if you want to specify a string to appear in the footer.
Footer (" ")	The footer parameter lets you enter any string to use as a footer. The default is to have no string in the footer. This parameter is overridden by selecting Date in Footer.
Page # in Header? (YES)	The page number is printed in the header unless you type N to turn it off. This parameter is overridden by selecting Title in Header.
Page # in Footer? (YES)	The page number is printed in the footer unless you type N to turn it off.
Page # Prefix: ("Page")	The page number prefix allows you to enter any string (up to 8 characters long) to use as a prefix to the page number. The default is the word "Page". Other uses for Page # Prefix might be "SECRET" or chapter number prefixes like 16-5 for page 5 of chapter 15.
Starting Page # (1)	If you selected page numbers on your printed output, either in the header or the footer, you can start at any page number you want. If you set this value to 0, the first stem is printed without a header or a footer. This allows you to put a title page in the top stem.

ESC P Print Commands

The ESC P command displays the prompt:

```
==== ESC PRINT (Keys,Titles,Branch,Outline,Marked,Query)
```

at the bottom of the screen. You can type the appropriate first letter (K, T, B, O, M, or Q) to select one of the options or any other key (e.g., RETURN) to cancel the print command.

To print an outline or part of one, you should first set the desired formatting switches on individual stems. Then, move your cursor to the desired title and type ESC P to select the print option you want. All the print options show you the format parameters menu and allow you to change any of the settings for format parameters before you print. See the ESC F A command for a description of these parameters. After the format parameters menu, the prompt:

```
==== Preview First?
```

is displayed. If you type Y, the formatted output is shown on your screen allowing you the chance to preview a trial run of the output before actually printing it. If you type N, the formatted output is sent to the printer.

Different print options obey different format parameters set by the ESC F commands. See the specific print commands for details.

ESC P K Print Keys in Branch

The ESC P K command prints the keys in the current branch. Like the ESC S K command, this command prints the format switches, the title character, the percent full, and the timestamp for the stem. Since ESC P K prints the format switches, it does not obey the switches set on individual stems. For example, if you set a title hidden, the key is still printed followed by the letter H for the hidden title format switch.

The ESC P K command obeys all the global format parameters except table of contents depth; no table of contents is printed. If section numbers are enabled, they are not printed for keys that are set hidden.

ESC P T Print Titles in Branch

The ESC P T command prints the titles in the current branch. This command is similar ESC S T except the output is sent to the printer. The ESC P T command obeys all the individual format switches. If a title is set as full or left justify, then that title will word wrap if it exceeds the right margin. If a title is set as hidden, it is not printed. If a title's page switch is set, a formfeed is issued prior to output of that title.

The ESC P T command also obeys all the global format parameters except table of contents depth (i.e., no table of contents is printed).

ESC P B Print Text in Branch

The ESC P B command prints the current branch in its entirety. This command is similar to the ESC S B command only the output is sent to the printer. The ESC P B obeys formatting switches on individual stems. It also obeys all the Format Parameters except indentation.

ESC P O Print Outline in Branch

The ESC P O command prints the current branch in its entirety as an outline with indentation to show the different levels. The ESC P O command is similar to the ESC S O command only the output is sent to the printer. The ESC P O command obeys formatting switches on individual stems. It also obeys all the Format Parameters.

ESC P M Print Marked Stems

The ESC P M command prints all marked stems in the current topic. It obeys the format switches on individual stems. It also obeys all the formatting parameters except indentation, section numbers, table of contents depth, output depth, and title in header. No table of contents is printed.

ESC P Q Print Query of Context

The ESC P Q command prints the context query. It is similar to ESC Q C only the output is sent to the printer. The ESC P Q command does not obey the format switches on individual stems. The only formatting parameters that it obeys are lines per page, left margin, line spacing, stop before page, and headers and footers. Basically, this command prints all titles in the current context whose stems contain the search string you have specified.

ESC O Outfile (write output file) Commands

The ESC O command writes your outline to a CP/M text file. It displays the prompt:

==== ESC OUTPUT-FILE (Keys,Titles,Branch,Outline,Marked)

at the bottom of the screen. You can type the appropriate first letter (K, T, B, O, or M) to select the type of output you want. Type any other key (e.g., RETURN) to cancel the command. Use these options to convert your outlines to files that are compatible with your word processor.

When you select any option, you get the prompt:

==== File Name:

Type in a CP/M file name using a drive prefix, if necessary, before the file name to specify a drive. If you don't specify a drive, the default drive is used. The drive used must have enough free space to hold the new file. If the drive is too full to hold the new file, you will get a DISKFULL abend. Use the ESC D (Directory) command to determine the free space available on each drive.

The file created can be a standard ASCII text file or a WordStar document file depending on how you have set the WordStar output formatting parameter.

To write an outline or part of one, you should first set the desired formatting switches on individual stems. Then, move your cursor to the desired title and type ESC O to select the option you want. All the options show you the Format Parameters menu and allow you to change any of the settings for global format parameters before you print. See the ESC F A command for a description of these parameters.

After you finish setting format parameters, the output file is created. The ESC O commands do not give you a preview as the print commands do. The file produced by an ESC O option is similar to the printout produced by the corresponding ESC P option except that the output is sent to a file.

Different output options obey different format parameters set by the ESC F commands. All the output options ignore format parameters that control paging (i.e., page size, headers and footers, stop before page, number of lines per page, and table of contents) are ignored. The WordStar output option is always obeyed as are line spacing, margins, and section number depth. Other parameters are obeyed as appropriate. See the specific output commands that follow for details.

ESC O K Outfile Keys in Branch

The ESC O K command writes the keys in the current branch to the specified output file. This command is similar to ESC P K only the output is sent to a text file, possibly with WordStar output. You are prompted for the file name, and to set global Format Parameters.

The ESC O K command obeys the global formatting parameters except headers and footers, stop before page, number of copies, number of lines per page, and table of contents depth; no table of contents is generated. It obeys line spacing, margins, indent size, section number depth, output depth, expanded outline, and WordStar output.

It does not obey the format switches on individual stems. No section numbers are generated for hidden titles.

ESC O T Outfile Titles in Branch

The ESC O T command writes the titles in the current branch to the specified output file. This command is similar to ESC P T only the output is sent to a text file, possibly with WordStar output. You are prompted for the file name, and for setting global Format Parameters.

The ESC O T command obeys the global formatting parameters except headers and footers, stop before page, number of copies, number of lines per page, and table of contents depth; no table of contents is generated. It obeys line spacing, margins, indent size, section number depth, output depth, expanded outline, and WordStar output.

It also obeys the format switches on individual stems. Hidden titles are not included in the output.

ESC O B Outfile Text in Branch

The ESC O B command writes the current branch in its entirety to the specified output file. This command is similar to ESC P B only the output is sent to a text file, possibly with WordStar output. You are prompted for the file name, and for setting global Format Parameters.

The ESC O B command obeys the global formatting parameters except indent size, headers and footers, stop before page, number of copies, number of lines per page, and table of contents depth; no table of contents is generated. It obeys line spacing, margins, section number depth, output depth, expanded outline, and WordStar output.

It also obeys the format switches on individual stems. Hidden titles are not included in the output.

ESC O O Outfile Outline in Branch

The ESC O O command writes the current branch in its entirety to the specified output file with indentation to show the levels of the outline. This command is similar to ESC P O only the output is sent to a text file, possibly with WordStar output. You are prompted for the file name, and for setting global Format Parameters.

The ESC O O command obeys the global formatting parameters except headers and footers, stop before page, number of copies, number of lines per page, and table of contents depth; no table of contents is generated. It obeys indent size, line spacing, margins, section number depth, output depth, expanded outline, and WordStar output.

It also obeys the format switches on individual stems. Hidden titles are not included in the output.

ESC O M Outfile Marked Stems

The ESC O M command writes all marked stems in the current topic to the specified output file, possibly with WordStar output. It obeys all the formatting parameters except indent size, section number depth, output depth, headers and footers, stop before page, number of copies, number of lines per page, and table of contents depth; no table of contents is generated. It obeys line spacing, margins, and WordStar output.

It also obeys the format switches on individual stems.

ESC C Copy Commands

The ESC C command displays the prompt:

==== ESC COPY (Down,Next,Extract,Marked)

at the bottom of the screen. You can type the appropriate first letter (D, N, E, or M) to select an option. Typing any other key (e.g., RETURN) cancels the copy. The copy down and next commands are similar to the corresponding Move Down and Move Next only you can switch to a different topic for the destination. Both Copy Down and Copy Next require two steps: first, you mark the branch to be copied; then, you go to the destination and perform the copy. The Copy Extract command extracts a branch into a separate topic. Copy Marked copies all marked stems into one branch.

Like the move commands, the copy commands can help you to reorganize your outlines in just about any way imaginable.

The only operations not allowed are those that would violate the hierarchical structure. First, you are not allowed to create gaps in the hierarchy. For example, you cannot have a stem followed by its grandchildren without having an intervening child. Appropriate abends occur if you select an option that would violate this rule.

Second, the top stem in the topic is protected by these operations. The top stem cannot have any siblings or ancestors. You get a TOPVIOL abend if you attempt to create siblings or ancestors to the top stem, e.g., you cannot demote the top stem, you cannot promote its children, you cannot move a branch next to the top, and so on.

In addition to reorganizing outlines, the copy next command provides a convenient way to make outline templates.

There are several differences between the copy extract command and the branch copies (down or next) or marked copies. For one thing, with branch and marked copies, the destination topic must already exist and may be the same as the source topic. The branch and marked copy commands do not prepare a new topic while the copy extract does.

Also, the top stem in the source branch is copied in its entirety on branch copies. With the copy extract, only the subtitle and leaf of the top stem is copied. With marked copies, all marked stems are copied in their entirety.

The branch copies (except for copy extract) require that you mark the source branch and go to the destination to perform the copy. The source branch does not have to be marked for the copy extract. The current title is used as the top of the branch to be extracted, and you perform the copy extract from the source. You are prompted for the name and size of the newly created destination topic. With the marked copy, the source stems must be marked, but, like the copy extract, you remain in the source topic and are prompted for the destination.

The copy extract always copies across topic boundaries. The branch copies and marked copy can copy between topics or within the same topic.

Before copying to a topic, make sure that your destination has enough room for the outline to be copied. You can check the size and percent full from the outline editor with the G command to show a list of topics.

For all the copy commands, messages are displayed during the copy process to inform you of the progress of the copy for each stem.

```
==== COPYING AND INDEXING STEMS ====
Writing: key
Reading: key
...
==== DONE ====
```

ESC C D Copy Marked Branch Down

The ESC C D command copies a previously marked branch down from the current title. First, use the TAB command to mark a branch for a copy. Mark only the single title at the top of the branch to be copied. If more than one title was marked prior to the attempted Copy Down, you get a BADSELECT abend and the copy is cancelled. After you've marked the source branch, go to the destination and type the copy down command (ESC C D) to copy the marked branch.

The destination can be in the same topic as the marked branch or you can go to a different topic and copy across topic boundaries. As with the other copy operations, messages are displayed informing you of the progress of the copy for each stem copied. After the copy is completed, you will be located in the destination topic at the top of the branch copied.

When you copy a branch down, the current title acquires a new set of descendents, i.e., the branch that was previously marked. If the destination title already has children, the marked branch is inserted ahead of the first child. If the existing children are not expanded on the screen, an automatic expansion is done before the copy. If there is insufficient room for this expansion, an OLEXPFULL abend occurs cancelling the copy. If the destination has no children, the marked branch becomes the only child of the destination title.

You cannot copy a marked branch into itself; a TREEINVERT abend occurs if you try. The destination must be in a different branch of the outline or in a different topic.

ESC C N Copy Marked Branch Next

The ESC C N command copies a previously marked branch next to the current title. First, use the TAB command to mark a branch for the copy. Mark only the single title at the top of the branch to be moved. If more than one title was marked prior to the attempted Copy Next, you get a BADSELECTabend and the copy is cancelled. After you've marked the source branch, go to the destination and type the copy next command (ESC C N) to copy the marked branch.

The destination can be in the same topic as the marked branch or you can go to a different topic and copy across topic boundaries. As with the other copy operations, messages are displayed informing you of the progress of the copy for each stem copied. After the copy is completed, you will be located in the destination topic at the top of the branch copied.

When you copy a branch next, the current title acquires a new sibling, i.e., the branch that was previously marked. If the destination title already has a subsequent sibling, the marked branch is inserted ahead of that title.

The copy next command is useful in creating outline templates. For example, suppose you are writing a report on several different materials describing their basic physical properties. For each material, you might want to have the same subsections in the report: color, mass, volume, charge, magnetism, and so on. You can enter the titles for these properties under the first material and then mark the branch:

```
+ - MATERIAL A
  . Color
  . Mass
  . Volume
  . Charge
  . Magnetism
  . . .
```

Then, copy it next to itself:

```
+ MATERIAL A
  . Color
  . Mass
  . Volume
  . Charge
  . Magnetism
  . . .
+ MATERIAL A
  . Color
  . Mass
  . Volume
  . Charge
  . Magnetism
  . . .
```

Continue marking the branch and copying next until you have enough sections for all the materials in your report. Then, go back and change each main title (MATERIAL A) to the name of one of the other materials and enter the specific data for each material.

You cannot copy a marked branch into itself; a TREEINVERTabend occurs if you try. The destination must be in a different branch of the outline or in a different topic.

ESC C E Extract Branch as Topic

The ESC C E command extracts the current branch as a topic. In effect, it lets you promote a branch to the status of being a topic itself.

The ESC C E command actually combines a topic prepare with a specialized branch copy. First, it prepares the new topic prompting you for the new topic name and size:

```
==== New Topic Name: NEW TOPIC
      New Size (Kbytes): 64
==== PREPARING NEW TOPIC: 'NEW TOPIC' ==== ===== DONE =====
```

If needed, you can use a drive prefix before the topic name to specify the destination drive. If you don't specify a drive, the default drive is used. The drive used must have enough free space to hold the new topic. If the drive is too full to hold the new topic, you will get a DISKFULLabend. Use the ESC D (Directory) command to determine the free space available on each drive.

After the new topic is prepared, the ESC C E command goes on to copy and index every stem from the current branch. First, the subtitle and leaf of the top stem in the branch are copied to the corresponding subtitle and leaf of the top stem of the new topic. Then, each subsequent stem is copied in its entirety, key, subtitle, and leaf. As with the other copy operations, messages are displayed informing you of the progress of the copy for each stem copied.

Upon completion, a "DONE" message is displayed and you are returned to the outline editor at the top of the new topic.

If the new topic is too small to hold the branch, you get a TOPICFULLabend and return to the outline editor at the top of the new topic. The new topic will contain everything copied until it was full.

ESC C M Copy Marked Stems

The ESC C M command copies all marked stems to a single destination. The copy marked command allows you to gather non-contiguous stems throughout a topic and collect them in one place. First, using the T command, you mark the stems in the source topic that you want to collect together. Then, while still in the source topic, you type ESC C M and enter the destination topic at the prompt:

```
==== To What Topic:
```

The destination can be the same topic as the source or a different one. However, it must already exist; the copy marked command does not create a new topic. It must also have room for the marked stems. Otherwise, you get a TOPICFULLabend and return to the outline editor at the top of the destination topic. The destination topic will contain everything copied until it was full.

Once you specify the destination topic, a special title with a key of COPIED is created as the first child of the top stem in the destination topic. Then, all marked stems are copied as children of COPIED.

As with the other copy operations, messages are displayed informing you of the progress of the copy for each stem copied.

When the copy is complete, you are returned to outline editor in the destination topic on the COPIED stem.

No structure is imposed on the marked stems. They are all copied as siblings on the same level in the destination outline and all are inserted as children in the COPIED branch.

ESC I Insert ASCII Text File

The ESC I command reads text from a CP/M, ASCII text file or a Wordstar document file into an OUT-THINK topic file allowing you to convert existing text files into OUT-THINK topics. When you type ESC I, the prompt:

==== File Name:

is displayed at the bottom of the screen. Enter a valid CP/M file name (including an optional drive prefix) to specify the text file that you want to convert. For convenience, the current file directory (see the ESC D command) is automatically listed prior to the File Name prompt.

If you read in a Wordstar document file, special characters (e.g., print control characters like ^PH) are dropped, since they have no meaning in OUT-THINK. Other non-ASCII characters (i.e., characters with the most significant bits set) are converted to standard ASCII codes; the most significant bits are cleared to 0.

OUT-THINK then starts inserting the text from the CP/M file into the current outline at the current location. First, a new key is inserted down, using the CP/M filename for the key. Then, text is inserted into the leaf of the new key until one of three conditions is met:

- the text file ends
- the new leaf is full
- a structure command is encountered in the text file

If the text file ends, you return to the outline editor on the most recently inserted stem.

If the current leaf fills up, the ESC I command creates a new stem with a key that is the CP/M file name. The new stem is inserted next from the current stem.

If a structure command is encountered, it is executed. As the outside text file is read in, the ESC I command scans it for any of three structure commands. Use your word processor to embed these structure commands into the text file and, thereby, instruct ESC I on how to structure your text. The three structure commands are described below.

If you don't use any structure commands in your text file, ESC I creates its own titles with keys that are the CP/M filename. When new stems are needed, they are inserted next, creating a series of siblings all on the same level. The new stems are created whenever they are needed, i.e., when the previous leaf is full. Generally, this occurs at arbitrary places, like in the middle of a paragraph, so it is recommended that the structuring commands be used. Otherwise, you will have to edit the resulting topic to organize it the way you want it.

If the text file fills up the destination topic, you get the TOPICFULLabend and you are returned to the outline editor on the last stem that was read in.

The Structuring Commands – ..D, ..N, and ..U

There are three structuring commands that you can insert into your text file before you read it into a topic: ..D, ..N, ..U.

Each command must start at the beginning of a line. It cannot be preceded by any spaces or other characters.

The ..D command can be in either of the following two forms:

```
..D key  
..D key\subtitle
```

For example:

```
..D PLANTS\ — A Classification
```

inserts the key “PLANTS” with the subtitle “— A Classification” down from the current stem. The backslash delimiter and subtitle are optional. The backslash (\) is used to separate the key from the immediately following subtitle. The \ character will not appear in either the key or the subtitle. Use the \ character only if it is actually followed on the same line by a subtitle. Otherwise, the \ is not needed.

When ESC I encounters the ..D structuring command, it saves the leaf it is currently writing, and inserts a new title down one level from the stem it just saved. The specified key and subtitle (if given) are used. Then, ESC I begins reading succeeding lines from the text file into the new stem.

The ..N command can be in either of the following two forms:

```
..N key  
..N key\subtitle
```

For example:

```
..N FRUITS\ — All the Varieties
```

inserts the key “FRUITS” with the subtitle “— All the Varieties” next from the current stem. The backslash delimiter and subtitle are optional and are interpreted in the same way as for the ..D command described above.

When ESC I encounters the ..N structuring command, it saves the leaf it is currently writing, and inserts a new title next on the same level as the stem it just saved. The specified key and subtitle (if given) are used. Then, ESC I begins reading succeeding lines from the text file into the new stem

The ..U command is simply in the form:

```
..U
```

It must be the first thing on the line, and nothing else should follow on the same line with it. When ESC I encounters the ..U command, it saves the leaf it is currently writing and goes up one level in the outline before continuing with the file input. Typically, ..U is followed immediately on the next text line by ..N and is used when you are done inputting siblings on the same level. You go back up to the parent and insert the parent's next sibling.

An Example of Using Structuring Commands

Suppose, you want to read in a text file and you want the resulting topic to appear in the following structure:

```
UNIVERSE
  MINERALS
  PLANTS — A Classification
    FRUITS — All the Varieties
    VEGETABLES
  TREES
  ANIMALS
```

Each key is in uppercase. Your UNIVERSE.TXT text file should contain structuring commands as follows:

```
(no structuring commands needed to start insert)
(text paragraphs at the start of the file are inserted)
(in the leaf of the new UNIVERSE.TXT key)
..D MINERALS
  (more text can follow here)
..N PLANTS\ — A Classification
  (more text can follow here)
..D FRUITS\ — All the Varieties
  (more text can follow here)
..N VEGETABLES
  (more text can follow here)
..N TREES
  (more text can follow here)
..U
..N ANIMALS
  (more text can follow here)
```

Note that when you are done inserting the stem TREES, you use the ..U command to go up to PLANTS and insert ANIMALS next from PLANTS. Also, you only use the backslash delimiter when you have a subtitle; no spaces are required before or after the backslash.

If a key in the CP/M text file is greater than 31 characters, it is truncated to 31. Subtitles greater than 63 characters are truncated to 63. For any text lines in the leafs that exceed 78 characters, a RETURN character is automatically inserted.

ESC D Show Directory of Files

The ESC D command is the same as the D command in the topic manager. It shows a directory of files for each drive in the current search path. The directory is a list of the CP/M filenames for the files on each disk. For example,

```
===== FILE DIRECTORY =====  
A:HELP      .TOP      A:TEMP      .TXT      A:SCRATCH .TOP      A:CALENDAR.TOP  
A:TEMP      .BAK  
B:LETTERS   .TOP      B:TO-DOLIS.TOP  B:LETTER   .TXT  
FOR DRIVE   A:        8K FREE  
FOR DRIVE   B:        64K FREE  
.... [Continue]?
```

Each new drive starts a new line of the list. Files with a .COM extension are not shown in the list.

After all the filenames are shown, the free space remaining on each drive in the current search path is shown. You can use this command before you backup a topic, resize a topic, read-in an outside file, write an outside file, or any other file operation. You can check the existing filenames on a drive to make sure you specify the file correctly and to make sure you don't create a conflicting name for a new file. And you can check the remaining free space to make sure you have room if you will be writing a file.

Note that for topic files, the CP/M filename (with the .TOP extension) is listed, not the OUT-THINK topic name.

The filenames shown in the list are those in the current user area; files in other user areas are not shown. (CP/M user areas are described in your CP/M manuals.)

ESC H Show ESC Options Help Screen

The ESC H command clears the screen and shows the outline editor help screen for the secondary outline editor commands. Press Y, SPBAR, or RETURN at the "... [Continue]?" prompt to return to the outline you were editing.

ESC T Exit to Topic Manager

The ESC T command clears the screen and returns you to the OUT-THINK topic manager. The topic manager heading line is shown along with the information line on the first topic file that is found.

ESC ESC Exit OUT-THINK to DOS

The ESC ESC command exits OUT-THINK and returns you to the operating system prompt. Before exiting, OUT-THINK prompts:

```
===== Exit to DOS, OK?
```

If you type N, you stay in the outline editor. If you type Y, you exit OUT-THINK and return to the operating system.

Leaf Editor

The leaf editor provides a full screen editor for you to conveniently enter and change the text in leaves. In the leaf editor, you issue commands to move the cursor character around on the screen. When the cursor is at the correct location in the text, you either type the text that you want to insert at that location, or you issue commands to delete, move, or copy at that location. Most editing changes take place at the cursor location.

You can edit a leaf from the outline editor; you can also return to the outline editor from the leaf editor.

If you edit a stem without a leaf, the screen is blanked and the cursor is shown as the first character on the first line of the screen. If you edit a stem with an existing leaf, the leaf text is displayed, and the cursor is located on the first character in the leaf.

Leaf editor commands are either control characters or escape sequences.

Control characters are typed by holding down the control key (usually labeled CTRL) while typing another key. For example, CTRL-F is typed by holding down the control key at the same as the F key. It is like typing a shifted character.

Escape sequences are typed by first typing the ESC key (usually labeled ESC), releasing it, and then typing the second key. For example, ESC H is typed by pressing the escape key and then pressing the H key.

Leaf editor commands can be grouped as follows:

Cursor Movement (Including Search)	CTRL-D, CTRL-S, CTRL-X, CTRL-E, CTRL-A, CTRL-F, CTRL-C, CTRL-R, CTRL-W, CTRL-Q
Insert and Delete Text (Including Search/ Replace and Block Delete)	CTRL-Z, CTRL-G, DEL, CTRL-T, CTRL-Y, CTRL-U, CTRL-N, CTRL-O, CTRL-V, CTRL-P, ESC M, ESC W
Move and Copy Text (Including Paragraph Reformat)	CTRL-B, ESC M, ESC W, ESC C CTRL-T, CTRL-Y, CTRL-U Reformat)
Utility Functions (Saving, Printing, Showing, Exiting)	ESC H, ESC P, ESC U, ESC Q, ESC S P, ESC S L, ESC S F, ESC S V, ESC S K, ESC S T, ESC ESC

Note that some commands appear in several categories, e.g., ESC W and CTRL-U. This is because the same commands can be used to delete text or to move it. Deleted text is temporarily stored in a special storage area called the yank buffer. Text from the yank buffer can be inserted at some other point in the leaf or in a different leaf, in effect, moving or copying the text.

The editor can be set in one of two modes: automatic insert or overstrike. The default is automatic insert, so typing any character causes that character to be inserted just before the cursor. If you switch to overstrike mode, any character that you type replaces the character at the cursor.

Every line in the editor is 79 characters or less. The editor also has an automatic word wrap that inserts a RETURN character at the end of every full line without your typing it. The line is wrapped at the space character closest to the end of the line. The carriage returns are not visible on the screen; however, they do exist at the end of each line and you can move the cursor on them, delete them, and so on.

With word wrap, you can type as fast as you want, and the OUT-THINK text editor automatically adjusts your text to fit on the screen.

The leaf editor maintains a "yank buffer" which is used to temporarily store text that you have deleted. The yank buffer permits you to undo the most recent delete command by yanking the text back from the buffer. The yank buffer is also used for the copy and move commands in the leaf editor. Copying and moving text is a two-step operation. First, you copy or move text to the yank buffer with the copy or wipe commands. Then, you copy back to the leaf from the yank buffer with the yank insert command.

When the leaf is nearly full (within 6 characters of being full), the editor beeps on every character that you insert. Then, when the leaf is completely full (2420 characters), you get a LEAFFULL abend and cannot enter any more text. You can still enter more text under the same title by using a hidden title for the next stem and continue to enter text there. On formatted output, the hidden title is suppressed so you have the effect of a single long leaf. See the ESC F command in the Outline Editor for further information on hiding titles.

Most editor commands that display information (e.g., the help function) or that request input from you temporarily clear the screen replacing the leaf text currently on the screen. After the command is done, the leaf text is restored on the screen. Some commands prompt at the bottom of the screen only overwriting a few lines, which are restored when the command is done.

CTRL-D Cursor Forward (Right)

CTRL-D moves the cursor one character at a time to the right. If the cursor is on the last character on a line, typing CTRL-D moves it to the first character of the next line. If the cursor is on the last character in the leaf, typing CTRL-D has no effect. Note that an invisible carriage return is the last character on every line.

CTRL-S Cursor Back (Left)

CTRL-S moves the cursor one character at a time to the left. If the cursor is on the first character of a line, typing CTRL-S moves it to the last character of the previous line. If the cursor is on the first character in the leaf, typing CTRL-S has no effect. Note that an invisible carriage return is the last character on every line.

CTRL-X Cursor Next Line (Down)

CTRL-X moves the cursor to the next line. If possible, the cursor is left in the same column. However, if the next line has fewer characters than the current line, the cursor is placed at the end of the next line. For example, in the following text:

```
    This is just an example of text
    that shows how the cursor can
    be moved.
    You can try it yourself in a text
    leaf.
```

If the cursor is on the “c” in “cursor” on the second line and you type CTRL-X, the cursor will move to the carriage return right after the “.” on the third line. If you type CTRL-X again immediately, the cursor will move to the “o” in “yourself” on the fourth line because the original cursor column is remembered. The cursor can only be moved on the text in the leaf. Note that the space character is not the same as a blank. If you fill up a line with space characters, you can move the cursor on those space characters.

If the cursor is on the last line of the screen when you issue the CTRL-X command, that line is scrolled up to the middle of the screen and the cursor is moved to the next line. If the cursor is on the last line in the leaf, typing CTRL-X has no effect.

CTRL-E Cursor Previous Line (Up)

CTRL-E moves the cursor to the previous line. If possible, the cursor is left in the same column. However, if the previous line has fewer characters than the current line, the cursor is placed at the end of the previous line. For example, in the following text:

```
    This is just an example of text
    that shows how the cursor can
    be moved.
    You can try it yourself in a text
    leaf.
```

If the cursor is on the “o” in “yourself” on the fourth line and you type CTRL-E, the cursor will move to the carriage return right after the “.” on the third line. If you type CTRL-E again immediately, the cursor will move to the “c” in “cursor” on the second line because the original cursor column is remembered. The cursor can only be moved on the text in the leaf. Note that the space character is not the same as a blank. If you fill up a line with space characters, you can move the cursor on those space characters.

If the cursor is on the first line of the screen when you issue the CTRL-E command, that line is scrolled down to the middle of the screen and the cursor is moved to the previous line. If the cursor is on the first line in the leaf, typing CTRL-E has no effect.

CTRL-A Cursor to Beginning of Line

CTRL-A moves the cursor to the beginning of the current line. If the cursor is already on the first character of a line, the CTRL-A command has no effect.

CTRL-F Cursor to End of Line

CTRL-F moves the cursor to the end of the current line. If the cursor is already on the last character of a line, the CTRL-F command has no effect.

CTRL-C Scroll Next Screen of Text

CTRL-C scrolls forward in the leaf a half screen at a time. The line at the bottom of the screen is moved to the center of the screen, and the cursor is located on the center line. If there is no next screen, the last line shown on the screen is moved to the center of the screen, and the cursor is placed on it.

CTRL-R Scroll Previous Screen of Text

CTRL-R scrolls backward in the leaf a half screen at a time. The line at the top of the screen is moved to the center of the screen, and the cursor is located on the center line. If there is no previous screen, the cursor is moved backward to the first character in the leaf. If there are not enough lines in the previous screen to move the current top line all the way to the center, the entire first screen of the leaf is shown and the cursor is moved back 12 lines placing it somewhere on the top half of the newly scrolled screen.

CTRL-W Center the Screen

CTRL-W leaves the cursor at its exact location in the text. However, if possible, it moves the current line to the center of the screen. If the cursor is on one of the first 12 lines in the leaf, the line cannot be moved down to the center of the screen and typing CTRL-W simply redisplayes the current screen.

CTRL-Q Find String (Search Forward)

CTRL-Q searches for a specified string (a sequence of characters) in the leaf. If the string is in the leaf, cursor is moved to the last character of that string. If possible, the line containing the string is displayed at the center of the screen.

When you type CTRL-Q, OUT-THINK prompts you at the bottom of the screen to "=== FIND WHAT?". You type the word or phrase that you want to find followed by RETURN. Then, the editor searches through the leaf starting at the current cursor location until it finds an exact match or reaches the end of the leaf without finding a match. Uppercase and lowercase characters are treated the same for the search. For example, if you search for "cat", the editor will find "CAT", "cAT", "CAt", "CaT", "Cat", "cAt", "caT", or "cat" as matches. The maximum size of string that you specify is 63 characters long.

If no match is found, the "NOTFOUND" abend is given. If you type CTRL-C or ESC as the first character in the search string, you will get the "ABORT" abend.

CTRL-Z Find & Replace with Query

CTRL-Z searches forward in the leaf for the string that you specify and can replace that string with an alternate one. First, the editor prompts you for a search string with the "... REPLACE: " prompt. You type the word or phrase that you want replaced followed by the RETURN key. Then, the editor prompts for the replacement string with the "... With: " prompt. You type the replacement word or phrase followed by the RETURN key. The maximum size for each string is 63 characters.

After you enter the replacement string the editor begins searching the leaf starting at the current cursor location. Each time a match is found, the cursor is placed on the last character of the matching string and the prompt "... Replace? (Yes,No,All,ESC)" is given.

If you type: then:

Y	this occurrence of the string is replaced and the editor searches for the next occurrence prompting again when it is found.
N	this occurrence is skipped and the editor searches for the next occurrence prompting again when it is found.
A	this and all subsequent occurrences of the string are replaced without any further prompts.
ESC	the search is ended.
CTRL-C	the search is ended with the ABORT abend.

Typing any other key has no effect.

If the string to be replaced is not found, the search is ended with the NOTFOUND abend.

If the replacement would cause the leaf size to exceed the maximum of 2420 characters, the search ends with a LEAFFULL abend.

CTRL-G Delete Cursor Character

CTRL-G deletes the character where the leaf cursor is currently located. The characters to the right of the deleted character move left by one to fill in the gap left by the deleted character. The character immediately to the right of the deleted character is the new cursor character. The cursor remains at the same location on the screen. If you delete the carriage return at the end of the line, the next line is joined with the current one if possible, i.e., if it does not extend beyond 79 characters. The deleted character is not saved in the yank buffer, and the previous content of the yank buffer remains unaffected by single character deletes.

DEL Delete Previous Character

DEL deletes the character immediately preceding the current cursor. The characters to the right of the deleted character move left by one to fill in the gap left by the deleted character. The cursor moves back one position on the screen remaining on the same character it was on before the delete. If you are located on the first character on a line and you press DEL, the carriage return at the end of the preceding line is deleted and the two lines are joined if possible, i.e., if the new line does not extend beyond 79 characters. If you are on the first character of the leaf, typing DEL has no effect. The deleted character is not saved in the yank buffer.

CTRL-T Wipe Next Word

CTRL-T deletes the next word from the leaf. Starting at the current cursor location, characters are deleted until one of the following conditions is met:

- a space character is reached (the space character is deleted too)
- a tab character is reached (the tab character is deleted too)
- a carriage return is reached (the carriage return is not deleted)

The deleted word is saved in the yank buffer until the next wipe delete command is issued. The previous content of the yank buffer is overwritten. The word can be yanked back to undo the delete or it can be yanked at a different location (even in a different leaf) to move the word.

CTRL-Y Wipe to End of Line

CTRL-Y deletes text starting at the cursor and ending at the carriage return at the end of the current line. The carriage return is not deleted. If you are on the first character of the line, the entire line except for the carriage return is deleted leaving a blank line on the screen. If the cursor is at the end of the line (i.e., on the carriage return), typing CTRL-Y causes the next line to be joined with the current line if possible, i.e., if the new line does not extend beyond 79 characters. The deleted text is saved in the yank buffer until the next wipe command is issued. The text can be yanked back to undo the delete or it can be yanked at a different location (even in a different leaf) to move the text.

CTRL-U Insert from Yank Buffer (Undo)

CTRL-U inserts the current text content of the yank buffer immediately prior to the current cursor. If you have not moved the cursor since you last deleted text with one of the wipe delete commands, you can yank it back where it was, effectively undoing the delete. Or you can move the cursor after copying or wiping text, effectively moving or copying the text. You can yank back as many copies as you want until you wipe or copy something else. You can even yank text back into another leaf by exiting the editor, moving to another stem in the outline editor, and editing the new stem. The yank buffer remains in tact unless you copy or wipe text in between steps.

CTRL-N Open New Line for Insert

CTRL-N inserts a carriage return at the cursor splitting the current line in two. The cursor is placed on the inserted RETURN character. It is the same as typing a RETURN except that the cursor is left on the carriage return at the end of the first line. CTRL-N is a convenience if you have to insert a lot of text, so you don't have to be distracted by the constant redisplay as the existing characters shift right each time you type a new character. Instead, you can open up a blank area on the screen for inserting the new text.

CTRL-O Open New Stem (Split Leaf)

CTRL-O splits a leaf at the current cursor. Text before the cursor remains in the current stem and is saved. Text after the cursor is placed in a newly created stem which is inserted next after current stem. CTRL-O gives you a prompt before proceeding "=== Split Leaf, OK?". If you type Y, you are prompted for the "= NEW KEY:" and the "= NEW SUBTITLE:". You cannot abort the operation at this point. You must enter a key and finish splitting the leaf. After the leaf is split, you are left in the new leaf at the end of the block of text that followed the cursor in the old leaf. If you type any character besides Y to the "=== Split Leaf, OK?" prompt, the split leaf is not attempted. If you try to split the leaf of the top stem in a topic, you get a TOPVIOL abend.

The purpose of the Split Leaf command is to allow you to type text continuously into a leaf until it is full and to remain in the leaf editor while you enter new titles as you continue with text input. Note: the split leaf command causes the loss of the current yank buffer contents.

CTRL-V Toggle Insert/Overstrike

CTRL-V toggles between insert mode and overstrike mode in the leaf editor. In general, you enter text into a leaf by moving the cursor to the position where you want the text to appear. Then, you start typing the text. The leaf editor either inserts the text or overstrikes depending on which mode you have set.

In insert mode, the characters you type are added to the leaf just ahead of the cursor. As you type a character, any existing text to the right is pushed ahead by one position to insert the new character.

In overstrike mode, the characters that you type replace the existing text with a few exceptions. If the cursor is on the carriage return at the end of the line or the end of a leaf and you start typing, you will shift temporarily to insert mode. If you type a RETURN in overstrike mode, the carriage return is not inserted. Instead, the cursor is moved to the beginning of the next line.

Actually, overstrike mode can best be thought of as typewriter mode because in overstrike mode the leaf editor behaves more like a typewriter than in insert mode. On a typewriter, if you move the carriage over existing text and begin typing, the new characters overstrike the existing ones. However, at the end of the line, there is nothing to overstrike and the characters are simply added at the end of the line. Also, if you press the RETURN key on a typewriter, the current line is not split at that point; instead, the carriage is moved down one line.

The insert mode is the default setting when you begin an OUT-THINK session. Within a session, the last mode set remains in effect even if you exit the leaf editor on one leaf and edit another leaf. In fact, you can even switch to a different topic, and the last setting remains in effect. However, once you escape back to CP/M, the default insert mode is re-instated for your next session.

CTRL-P Insert Next Character

CTRL-P forces an insert of the next character that you type. The next character can be anything you can type on your keyboard — including control characters. If you want a control character or the escape character to appear in your leaf, use this command to insert the character. Otherwise, the control character or escape is interpreted as a command by the leaf editor. All control or escape characters that you insert into the leaf are displayed as a tilde (~) character. They occupy one byte in the leaf. One reason that you might want to insert control characters into a leaf is that most printers obey control characters and escape sequences to boldface, underline, or perform other formatting functions. You can turn on those features by inserting the appropriate control characters in the leaf. Consult your printer manual to determine which control characters it obeys.

CTRL-B Paragraph Reform

CTRL-B reformats the paragraph where the cursor is located. The cursor is moved to the end of the paragraph after the reformat is complete. When you edit text, the current paragraph can become messy with short lines mixed in with long ones where you have inserted or deleted text. Typing CTRL-B moves the text in the current paragraph joining short lines so that all the text is evenly distributed between the right and left side of the screen. Typing CTRL-B when you are on the blank line following a paragraph reformats the preceding paragraph.

ESC Additional Leaf Editor Commands

ESC prompts you for additional options as follows:

==== ESC (Help,Mark,Wipe,Copy,Print,Update,Quit,ESCape,Show)

You can type the appropriate first letter (H, M, W, C, P, U, Q, ESC, S) to select an option. Typing any other key (e.g., SPBAR or RETURN) cancels the option selection.

ESC H Show Help Screen

ESC H clears the screen of leaf text and displays the Leaf Editor help screen. Press Y, SPBAR, or RETURN at the “.... [Continue]?” prompt to return to the leaf you were editing.

ESC M Mark Start of Text Block

ESC M marks the current cursor location as the beginning of a block of text. A block of text is any contiguous sequence of characters in a leaf. Once you define the beginning and end of a block, you can wipe (delete) that block, move it, or copy it.

To:	The steps are:
Wipe	Mark the beginning of the block; move the cursor to the end of the block; type ESC W.
Move	Mark the beginning of the block; move the cursor to the end of the block; type ESC W; move the cursor to the destination of the move; type CTRL-U.
Copy	Mark the beginning of the block; move the cursor to the end of the block; type ESC C; move the cursor to the destination of the copy; type CTRL-U.

ESC W Wipe Block to Yank Buffer

ESC W moves the current block to the yank buffer deleting it from its location in the leaf. By combining ESC W with CTRL-U, you can move the text to another location. The deleted text remains in the yank buffer until the next wipe operation is performed.

ESC C Copy Block to Yank Buffer

ESC C copies the current block to the yank buffer leaving it at its current location in the leaf as well. By combining ESC C with CTRL-U, you can copy the text to another location. The copied text remains in the yank buffer until the next wipe operation is performed.

ESC P Print New Edited Leaf

ESC P prints the current leaf being edited ignoring any format switches set on the stem. The leaf is printed as it appears on your screen. However, this command does obey the left margin, page size, and line spacing parameters that you can set with the ESC F A command in the outline editor.

ESC U Update New Leaf to Topic

ESC U saves the current leaf back to the topic file. Typing ESC U does not exit the editor and you can continue modifying the same leaf.

ESC Q Update Leaf & Quit Editor

ESC Q saves the current leaf and exits the leaf editor all in one step. Typing ESC Q is the same as typing ESC U immediately followed by ESC ESC.

ESC ESC Exit Leaf Editor

ESC ESC exits the leaf editor and returns to the outline editor without saving the leaf. If changes have been made since the leaf was last saved, the editor prompts you before exiting with the "... Abandon New Leaf?" prompt to give you a second chance to save the changes. Type Y to exit without saving the changes or N to continue editing.

ESC S Leaf Editor Show Commands

ESC S displays the following prompt:

```
==== Show (Percent,Leaf,Focus,View,Keys,Titles)
```

You can type the appropriate first letter (P, L, F, V, K, T) to select an option. Typing any other key (e.g., SPBAR or RETURN) cancels the option selection.

By selecting one of the options you can show the corresponding information on the screen as described in the following sections. The percent is shown on the bottom line of the screen with the text leaf remaining on the display. With all the other information, the text leaf is overwritten and the data is displayed on an alternate screen. After the data is displayed, you can type Y, SPBAR, or RETURN to continue and return to editing the text leaf.

ESC S P Show % New Leaf Full

ESC S P shows on the bottom line of the screen how full the new leaf is. Each leaf can contain up to 2420 characters of text. The size is shown as a percentage of the total amount. The information stays on the screen a few seconds before returning automatically to the leaf editor. You can also show the percent full on the existing leaf with the ESC S V option in the leaf editor.

ESC S L Show Old (Unmodified) Leaf

ESC S L lists the most recently saved version of the leaf currently being edited. At the end of the display, the prompt "... [Continue]?" is shown. Type Y, SPBAR, or RETURN to restore the screen to the new leaf text you were editing. This command is useful if you are making changes and you want to compare the old version to the new one before you save the changes.

ESC S F Show Focus to Current Key

ESC S F clears the display and shows a focus to the current stem. The focus command shows the keys of all the ancestors of the current stem. See the ESC S F option in the Outline Editor for more information. At the end of the display, the prompt "... [Continue]?" is shown. Typing Y, SPBAR, or RETURN restores the screen to the leaf you are editing.

ESC S V Show View Near Current Key

ESC S V clears the display and shows a view around the current stem. The view command shows the keys (including formatting codes, title characters, percentage full, and time stamps) surrounding the current stem. Included are keys on the same level as well as the parent and children of the current stem. See the ESC S V option in the Outline Editor for further information. At the end of the display, the prompt "... [Continue]?" is shown. Typing Y, SPBAR, or RETURN restores the screen to the leaf you are editing.

ESC S K Show Keys in Current Branch

ESC S K clears the display and shows all descendent keys for the current stem. The keys command shows the keys (including formatting codes, title characters, percentage full, and time stamps) of all the descendents of the current stem. See the ESC S K option in the Outline Editor for further details. At the end of the display, the prompt “.... [Continue]?” is shown. Typing Y, SPBAR, or RETURN restores the screen to the leaf you are editing.

ESC S T Show Titles in Current Branch

ESC S T clears the display and shows all descendent titles for the current stem. See the ESC S T option in the Outline Editor for further details. At the end of the display, the prompt “.... [Continue]?” is shown. Typing Y, SPBAR, or RETURN restores the screen to the leaf you are editing.

Appendix A

Troubleshooting

Sooner or later, you will probably encounter an abend (abnormal ending to a command) or some other result that you didn't expect and don't quite understand. You'll then need to do some troubleshooting to figure out what's going wrong, and this section can help you.

All the abend messages in the system HELP topic are listed here in alphabetical order with possible causes and possible solutions. We've also collected some of the most common questions that people have when they are learning to use OUT-THINK (with answers too, of course).

Abends — Handling Errors and Abnormal Conditions

OUT-THINK provides an error handling system to provide help when abnormal conditions are detected. An “abend”, short for abnormal ending, stops the currently executing command and displays a message that describes the condition detected. Then, depending on the help level set, further information about the abend can be displayed. There are four help levels in OUT-THINK. Initially, the help level is set to 3. However, you can easily change the help level in the topic manager with the ESC H option.

HELP LEVEL	ABEND
0	displays a single line message with the abend name.
1	displays a single line message with the abend name, beeps, and displays the title of the corresponding help stem in HELPTOP.
2	displays a single line message with the abend name and the corresponding help stem in HELPTOP.
3	displays a single line message with the abend name, beeps, and prompts whether or not to display the corresponding help stem in HELPTOP.

The single line message is in the form:

???? ABEND: <abend name>

If the help level is set to 3, the additional message (— MORE HELP?) is appended to the basic single line message:

???? ABEND: <abend name> — MORE HELP?

If you type Y, you will get a more detailed message from the corresponding help stem in the HELP topic in a branch called ABENDS. The detailed abend messages from the HELP topic are listed on the following pages in alphabetical order. They are functionally classified in the file HELPTOP.

For example, one abend that you may get is named BADDEMOTE. BADDEMOTE occurs when you try to move the first child on a level to the right. Moving a stem right reduces its rank like a demotion. Assuming the outline:

```
PARENT
  FIRST CHILD
  SECOND CHILD
  THIRD CHILD
```

If you try to move FIRST CHILD to the right, you get the BADDEMOTE abend because moving FIRST CHILD to the right would create a gap in the outline structure. Thus, it is not allowed.

If the help level is set to 3, you get a single line message with the abend name and a prompt for more help:

```
???? ABEND: BADDEMOTE — More Help?
```

If you type N, you'll be returned to the outline editor to continue editing your outline.

If you answer the prompt by typing Y, you'll get a display of the BADDEMOTE stem found in the HELP topic:

BADDEMOTE: Attempt to demote (move right) the first stem on a level

CAUSE: If the first stem on a level were demoted, a level gap would be created. Therefore, the first stem cannot be demoted.

ACTION: Check the current cursor location when the move right command is attempted.

.... [Continue]?

After you read the message, type Y, SPBAR, or RETURN to continue.

The following abends are listed alphabetically with an explanation of their possible cause and actions you can take.

ABORT: Normal operation intentionally aborted

CAUSE: Usually, this abend occurs after you type a CTRL-C to abort the current operation.

ACTION: If you typed CTRL-C unintentionally, you must restart the aborted operation.

BADDEMOTE: Attempt to demote (move right) the first stem on a level

CAUSE: If the first stem on a level were demoted, a level gap would be created. Therefore, the first stem cannot be demoted.

ACTION: Check the current cursor location when the move right command is attempted.

BADDISKREAD: Bad disk read

CAUSE: This abend is one of the four fundamental CP/M BDOS errors that are trapped by OUT-THINK. It is the same as the BDOS error "BDOS ERR ON x: BAD SECTOR" where x is the disk drive where the error occurred. It may indicate a defective diskette, a hardware problem with your disk controller, a worn out diskette, an attempt to read a diskette written by an incompatible disk controller, or a write protect tab on a disk being written to.

ACTION: Maintain adequate backups so that data will not be lost in the event of a worn out or defective diskette. If the problem is with your controller, have the controller repaired; or only read diskettes that were written with a compatible controller. If the error recurs, you may need to have the faulty drive aligned. Remove any write protect tabs on disks being written to.

BADDISKSEL: Bad disk drive select

CAUSE: This abend is one of the four fundamental CP/M BDOS errors that are trapped by OUT-THINK. It is the same as the BDOS error "BDOS ERR ON x: SELECT" where x is the disk drive where the error occurred. It indicates that an attempt was made to select a non-existent drive. Under CP/M, 16 drives are available labeled A: through P:. However, only those with drivers implemented in the BIOS are accessible.

ACTION: Check to make sure that the drive you have specified is available. Don't use ESC P (Set Path) in the Topic Manager to specify drives that are not available. If the drive is actually available, you can use the ESC P option in the Topic Manager to make OUT-THINK aware of that drive.

BADFNAME: Bad file name

CAUSE: The file specified was not a valid CP/M file specification.

ACTION: Check the file specification. It should contain an optional single character drive specification (followed by a colon), followed by a 1-8 character file name, optionally followed by a period and a 0-3 character file extension in the form "[drv:]fname[ext]". The following characters are not valid: *, ?, =, ,, :, __, and any control character.

BADPARAM: Bad Parameter Entered

CAUSE: Some commands require a parameter that falls within a range of values. This abend occurs if one of those commands encounters an out-of-range value. For example, ESC H (Set Help level) in the Topic Manager can only take parameters with values of 0, 1, 2, or 3; other values do not make sense for this command.

ACTION: Check the parameters given to make sure that they fall within the correct range for the specified command.

BADSELECT: Invalid source selected for a marked operation

CAUSE: A Marked operation was attempted but no source had been selected using the mark (T or TAB) command in the Outline Editor. A move selected branch does not remain selected if you exit one topic and enter another — Moves can only take place within the Topic you are currently editing. Likewise, a copy selected branch does not remain selected if you edit any leaf or perform the New Context command in the Topic Manager. This abend also occurs if you attempt a branch move or copy with more than one branch marked.

ACTION: Make sure you mark a source before attempting to move or copy a branch (or before attempting a multiple marked operation). The best practice is to Mark the item(s) and then perform the matching Copy, Move, Delete, Print, or Outfile command with a minimum of intervening operations.

BADTNAME: Bad topic name

CAUSE: The topic name specified was a null string; or invalid characters were used in the name.

ACTION: The topic name specification can contain an optional single character drive specification (followed by a colon) followed by up to 31 characters. Check for typos. Don't use ASCII control characters in a topic name.

DIRFULL: Directory is full

CAUSE: This abend is a low level file processing error. It indicates that OUT-THINK attempted to add a new file or a new extent to an existing file when the CP/M disk directory was full.

ACTION: Try moving some files off the disk that overflowed.

DISKFULL: Disk is full

CAUSE: This abend is a low level file processing error that occurs when writing a file. It can occur with the P (Prep) command in the Topic Manager or when outputting outline text to a CP/M file. However, it does not occur when inserting material into an existing topic because space for the topic is preallocated.

ACTION: Try breaking up the files to separate disks, so that you will have room to expand.

DREADONLY: Attempt to write to a read-only disk

CAUSE: This abend is one of the four fundamental CP/M BDOS errors that are trapped by OUT-THINK. It is the same as the BDOS error "BDOS ERR ON x: READ ONLY" where x is the disk drive where the error occurred. It indicates that an attempt was made to delete or write to a file after you have changed diskettes without telling OUT-THINK.

ACTION: In the Topic Manager, use the N (New Context) command BEFORE you change diskettes.

DUPTOPIC: Attempt to create a topic with a duplicate name

CAUSE: Duplicate topic names on the same disk drive are not allowed. Any operation that creates a new topic file such as the P (Prep), R (Resize), or B (Backup) commands in the Topic Manager can cause this abend. Editing the top key in a topic can also cause this abend.

ACTION: Select a different drive or a different topic name. The characters *, ?, =, ,, :, and _ in topic names are ignored, so if two topic names only differ by these characters, they are treated as duplicates. Also, if the first 8 non-ignored characters are the same, OUT-THINK treats them as duplicate names.

ENTRYLOCK: Attempted unauthorized entry of a locked topic

CAUSE: OUT-THINK topics can be protected from unauthorized use in two ways. First, they can be protected from being entered by unauthorized users. Second, they can be protected from unauthorized modification. This abend indicates that an unauthorized user attempted to enter (and read) a topic that was protected (locked) from being entered.

ACTION: Check to make sure that you have the proper user name and password to enter the locked topic.

FREADONLY: Attempt to write or delete a read-only file

CAUSE: This abend is one of the four fundamental CP/M BDOS errors that are trapped by OUT-THINK. It is the same as the BDOS error "BDOS ERR ON x: FILE R/O" where x is the disk drive where the error occurred. It indicates that an attempt was made to delete or write to a file that has been set to read only status.

ACTION: Check for typos in the file specification. Check the specified file to make sure that it is set to read/write status — OUT-THINK topic files should never be set as R/O files.

KEYNOTFOUND: Specified key was Not Found in Topic Context

CAUSE: During a search of the current topic context, the specified key was not found.

ACTION: Check to make sure that you have specified the right key. Check to make sure that the right topics are mounted. Check for typos.

KEYTOOLONG: Specified key greater than 31 characters

CAUSE: The maximum length for a key is 31 characters.

ACTION: Choose a shorter key.

LEAFFULL: Leaf is Full

CAUSE: An operation that puts data into a leaf overflowed the maximum size of 2420 characters. During leaf editing, this abend indicates that the leaf is full.

ACTION: Make the leaf shorter before attempting to save it into the topic. Split the leaf using the Split Leaf option in the Leaf Editor. You can check how full the leaf you are editing is by using the ESC S P command in the Leaf Editor.

MEMORYFULL: Operation cannot be performed because Memory is Full

CAUSE: OUT-THINK uses all available TPA (Transient Program Area) in your CP/M system. Depending on your system, certain OUT-THINK operations may not have enough room if your TPA is too small.

ACTION: OUT-THINK requires at least 48K of TPA for operation. If your system does not have this, then you can try the MOVECPM command that is part of most CP/M systems to extend the TPA. If you are using a memory resident utility (eg, a keyboard enhancer like Smartkey), it may consume too much of the TPA for OUT-THINK to work. In such cases, try running OUT-THINK without any other memory resident utilities loaded.

MODIFYLOCK: Attempted unauthorized modification of a locked topic

CAUSE: OUT-THINK topics can be protected from unauthorized use in two ways. First, they can be protected from being entered by unauthorized users. Second, they can be protected from unauthorized modification. This abend indicates that an unauthorized modification was attempted in a topic that was protected (locked) from being modified.

ACTION: Check to make sure that you have the proper user name and password to modify the locked topic.

NOBLOCK: Required Text Block was not Marked during Leaf Edit

CAUSE: A block operation was attempted during leaf editing but no start of text block was Marked prior to the operation.

ACTION: Make sure you Mark the start of a block prior to attempting a block operation. For example, to wipe (delete) a block while editing a leaf: you mark the start of the block (with ESC M); move the character cursor to the end of the block; and then wipe the block (with ESC W). The wiped text is kept temporarily in an Undo (or "Yank") buffer and you can re-insert the text from the most recent wipe.

NOTATOPIC: Invalid topic file

CAUSE: A topic command attempted to operate on a file that is not a topic.

ACTION: Check to make sure that the topic file in question was created by KAMAS or by OUT-THINK. Check for bad diskette media. Don't use the .TOP extension on CP/M files that aren't OUT-THINK or KAMAS topics.

NOTFOUND: Item was not found

CAUSE: This abend occurs when OUT-THINK cannot find the specified item, and no other more specific abend applies to the situation.

ACTION: Check for typos; check to make sure that you have specified the item as required.

NULLKEY: Specified key was null

CAUSE: The required parameter was an entry whose value is a word (or phrase) to be used as a name (key) for a title in the outline. Null keys are invalid.

ACTION: Check for typos; check to make sure that the string specifying the key is not null (empty).

OLEXPFULL: Outline Expansion Buffer Full during Outline Edit

CAUSE: During Outline Editing, OUT-THINK uses free memory space for Outline Expansion. This abend occurs when there is no more room for an attempted outline expansion.

ACTION: While still in the outline editor, try collapsing other unneeded branches to make room. If you are editing a very large outline, try editing just a branch of the outline (ie, the E B command).

STEMREADONLY: Attempt to edit, write, or delete a read only stem

CAUSE: The specified stem has been marked read only by the KAMAS MARKRO command. OUT-THINK in itself has no way to mark stems as read only.

ACTION: Check to see if you are trying to modify the correct stem, or edit the topic with KAMAS and clear the read only protection with the KAMAS CLRO command.

SYSTEM: Internal OUT-THINK System Error

CAUSE: An internal error condition was detected by OUT-THINK within itself.

ACTION: Run diagnostics on your computer's memory, CPU, and disk controller. Make sure you have a valid copy of both CP/M and OUT-THINK.

TCEMPTY: Topic Context Empty

CAUSE: An attempt was made to remove the only mounted topic. At least one topic must be mounted (ie, marked for searching). This abend also occurs if file HELP.TOP is not found during OUT-THINK initialization.

ACTION: Mark another topic for searching before unmarking the one you specified. Make sure that the file HELP.TOP is available before starting OUT-THINK.

TCFULL: Topic Context Full

CAUSE: An attempt was made to mark more than 16 topics for searching. Topics that you edit from the Topic Manager are automatically mounted (ie, marked for subsequent searching).

ACTION: Use the – (Unmark) command in the Topic Manager to unmount one or more marked topics from the current context to make room for the new one.

TOPICFULL: Topic file is too dense or full

CAUSE: There is so much text in the current topic file that OUT-THINK could not find enough empty space for an insert. This abend can occur when inserting titles or leafs if the USED column in the Topics list shows greater than 95%.

ACTION: Start a new topic or delete unneeded information in the destination topic. Try using the Resize command in the Topic Manager to resize the topic that is full to a larger size. It's a good idea to resize your topic to a larger one when it grows to greater than 95% full.

TOPVIOL: Attempt to violate top key of outline

CAUSE: The top stem in the tree is unique. There can only be one and there must be one. Thus, it cannot be deleted; its immediate children cannot be promoted; it cannot be demoted; another title cannot be inserted next to it; and so on.

ACTION: If you want to change the top title, you can edit it in the Outline Editor. If you want to delete the topic, use the K (KILL) command in the Topic Manager.

TREEINVERT: Attempt to move or copy a branch into itself

CAUSE: An attempt was made to move or copy a branch to a location within itself. The Move Down, Move Next, Copy Down, and Copy Next commands affect the entire branch, and it is not possible to move or copy the branch into itself.

ACTION: Try to break up the branch using Move Left or Move Right commands before attempting the branch operation. In other words, break up the branch into two separate branches and move or copy one into the other.

TREELOST: Disconnected Stem Encountered

CAUSE: OUT-THINK encountered an invalid tree linkage. The low level topic traversal routines could not access the outline tree. A TREELOSTabend means that your topic file is damaged.

ACTION: Check for bad disk media. Make sure that you do not remove diskettes prior to normally exiting OUT-THINK. If you wish to change diskettes while remaining in OUT-THINK, use the N (New Context) command in the Topic Manager ****BEFORE**** you change any disks. Also, do not reset your computer during OUT-THINK operation. Try Resizing the damaged topic to another of equal or larger size.

Common Problems, Questions, and Answers

Here are some of the most common questions we hear.

How do I print my topic?

OUT-THINK offers a wide variety of formatted printing options, including page numbers, headers and footers, and table of contents. There are two kinds of formatting in OUT-THINK:

- formatting on individual stems
- global formatting parameters that affect all stems being printed

To print a topic or a part of one, you may first set the formatting switches on individual stems and then set the global format parameters. Finally, you print the outline.

To set format switches on individual stems, use the appropriate ESC F commands. Then, move your cursor to the desired title and type ESC P and select the print option you want to print the branch.

All the print options show you the format parameters menu and allow you to change any of the settings for global format parameters before you print. See the ESC F A command for a description of these parameters. After the format parameters menu, the prompt:

==== Preview First?

is displayed. If you type Y, the formatted output is shown on your screen allowing you the chance to preview a trial run of the output before actually printing it. If you type N, the formatted output is sent to the printer.

Different print options obey different format parameters set by the ESC F commands. See the specific print commands (ESC P in the outline editor reference section) for details.

I tried ESC P to print and the whole computer locked up. What happened?

Have you made sure the printer is properly connected? Powered on? Is there paper in the printer? Ribbons? Is the printer switched online?

OUT-THINK uses the CP/M operating system to print. It does not try to go directly to your printer. However, your printer must be installed as part of the operating system for OUT-THINK to work. Try going to the CP/M A> prompt. Type CTRL-P. Then, enter the DIR command. Does your printer work? CTRL-P turns on printing, so this should print a directory. If it does not work, then your printer is not connected or not installed for CP/M. Usually, there is a SETUP command or CONFIG command to install the printer for the operating system. The CP/M STAT command can also be used to assign a printer port as the CP/M list device (LST:). See your CP/M manuals for a description of the STAT command.

If you did get a printout of the directory, but you still can't print from OUT-THINK, you may need to send your printer an initialization string from OUT-THINK. Check your printer manual to see if your printer requires an init string. OUT-THINK lets you specify a printer init string during installation, so re-install OUT-THINK and specify the required initialization string.

When I print outlines, the leafs overflow on the right margin. What can I do about this?

Printed lines can wrap or be truncated depending on your printer. To solve the problem, set the right margin in OUT-THINK to a smaller value and format all the stems you are going to print as either left or right justified so they will obey the right margin.

I set the right margin, but it didn't work. The leafs still overflow. What now?

Make sure that you set either the left or full justify switch on all stems that you want to obey the right margin.

I printed out my outline, but the text does not look like what's in the leafs. What can I do?

The default format for new stems is left justify. Stems can also be set to full justify. In both cases, this means that when you print using the ESC P command in the outline editor, the stems obey the left and right margins. The resulting line width could be different from the line width in the leaf editor (i.e., 80 characters). If you want the text to appear as it does in the leaf editor, set the justify switch on the stem to verbatim so that the stem does not obey the right margin. See the ESC F command in the outline editor reference section for details.

When I print, OUT-THINK fills the first page and skips alternate pages afterwards. What can I do?

Usually, this is because your printer is issuing formfeeds automatically and independently of OUT-THINK. With both issuing formfeeds out of sync with one another, you end up with blank pages in your printout. Some word processors initialize your printer to Auto-formfeed when they run.

After running one of these word processors or if you get these symptoms for some other reason, you must turn off the Auto-formfeed on your printer before running OUT-THINK. To turn off the Auto-formfeed, you can configure OUT-THINK with the appropriate initialization string for your printer; or, on some printers, there is a switch setting to turn off Auto-formfeed. See the READ ME FIRST book for information on setting a printer initialization string.

Can I get OUT-THINK to print boldfaced?

OUT-THINK does not prevent you from using some of the built-in features of your printer to add some snap to your printouts.

Usually, printers respond to a set of control codes and escape sequences to turn on features like bolding. In the case of the NEC Spinwriter 3510, ESC + turns on shadow bolding and ESC , exits or turns it off. So if you can insert ESC + before each phrase to be bolded and ESC , afterwards, you can print boldfaced type. However, in the leaf editor, the ESC key and CTRL keys are used for editing commands.

When you type normal characters (letters, numbers, etc.) they are entered into the leaf at the cursor. OUT-THINK also lets you enter control codes and escape sequences with the CTRL-P command which inserts the next typed character. This is done even if the next character is a control code. CTRL-P only affects the single next character that you enter; if you need to enter several control codes, type CTRL-P prior to typing each one.

NOTE

Simply read through or skip the following example unless you have a NEC Spinwriter 3510 or you know the printer control codes for your printer. Do not perform the editing described in this section unless you know the control codes for your printer.

First, edit a leaf and enter the following line:

Sharon Myers will be the project leader of the backpack team.

Next, move the cursor to the "S" in "Sharon". Type CTRL-P and then type the ESC key. OUT-THINK shows all control characters as a tilde on the screen. Then, type the +. Don't type any spaces. The line looks like this:

~+Sharon Myers will be the project leader of the backpack team.

Move the cursor to the space after "Myers" and before "will". Type CTRL-P and press the ESC key; then, type , to turn off bolding:

~+Sharon Myers~, will be the project leader of the backpack team.

If you don't have a NEC Spinwriter 3510, but you know the corresponding codes for your printer, enter those instead.

When you print the leaf (e.g., with the ESC P command in the leaf editor), the printer will obey the embedded codes and turn on bold facing when printing the name Sharon Myers.

In a similar way, you can enter codes for underlining, changing fonts, and other built-in features of your printer by inserting the appropriate codes.

Note that codes are counted when printing formatted text when the margins are obeyed. If you tried to print a line containing codes with right justification, the right margin would not line up correctly. But for ragged right printout, this technique usually works with no problem.

How do I convert outlines from a topic file to a Wordstar file?

OUT-THINK has several ways to convert the content of a topic file to an outside text file. The ESC O command in the outline editor provides the Outfile menu prompt. Each one of the Outfile commands provides you with the opportunity to set Format Parameters. If you want a Wordstar document file for your output, then set item L (Wordstar Output?) to YES. If you leave this parameter set to NO, the output file will be a standard ASCII text file (i.e., a "non-document" text file in Wordstar).

How do I read a Wordstar file into a topic?

Use the outline editor ESC I command to insert an outside text file into an existing topic file. This command works for both Wordstar document files and standard ASCII text files. Make sure you have enough room in the existing topic for the text before you try to insert it. The ESC I command recognizes a set of structure commands, i.e., dot commands that you can embed in your text file to determine the outline structure as the file is read in. If you do not use the structure commands, OUT-THINK automatically breaks the text into stems and uses the filename for each successive key. See the ESC I command in the outline editor reference section for more details.

I got an OLEXPFULLabend when I tried to expand my 1 MB topic. How can I edit this topic?

When you edit an outline, the expanded titles are stored in your computer's memory (RAM). The average CP/M system has room for about 200 titles to be expanded at any one time. If you have loaded memory resident utilities such as keyboard macro programs, you will have less room since these utilities take a portion of the computer's memory.

There are two strategies for editing very large topics or editing topics when you have less memory available. First, you can edit a portion of the outline by hoisting it with the edit branch command. Second, you can try collapsing parts of the outline that you don't need to work on while you are working on other parts that are expanded.

How do I hoist and de-hoist?

Hoisting allows you to narrow your scope and edit a small portion of an outline rather than the whole thing. In effect, you can edit a branch of the topic. De-hoisting allows you to return to editing the entire topic.

In the outline editor, move your outline cursor to the top title in the branch you want to edit and type EB to hoist the branch. When you have finished editing the branch, type R to re-edit the entire topic.

I type ESC H when I was editing a title, but I got no help. Why not?

There is no help command in the title editor. The title editor help is shown on the same help screen as the main outline editor help. Type H in the outline editor to see the title editor options.

How do I move a paragraph in a leaf?

There are four different combinations for moving blocks of text:

- moving a block within a leaf
- moving a block from one leaf to another
- copying a block within a leaf
- copying a block from one leaf to another

If you move or copy from one leaf to another, the two leaves involved do not have to be in the same topic.

Moving and copying text blocks are two examples of what we call de-coupled operations. Other examples include formatting and printing, hoisting and de-hoisting, and selecting branches to move and copy. All these operations require more than one step to accomplish. In other words, you start by doing one thing, but you don't realize any results until two or three steps later.

Usually, de-coupled operations can provide you with more flexibility and more control over the operation. However, they are a little harder to learn because you have to remember to do all the steps. De-coupled operations are more powerful in the same way that abstraction provides you with intellectual leverage by hiding the details.

Here are the steps for moving text in a leaf:

1. Mark the text you want to move by placing the cursor on the first character to be moved and pressing **ESC M** to mark the beginning of the block.
2. Move the cursor to the last character of the block and type **ESC W** to wipe (delete) the text to the yank buffer. The text is deleted from the leaf and temporarily stored in the yank buffer.
3. Go to the destination in the same leaf or exit the current leaf and edit another one possibly in a different topic.
4. When the leaf cursor is on the destination character, type **CTRL-U** to undo the wipe and yank insert the text from the yank buffer.

Copying follows exactly the same steps except that you use **ESC C** in step 2 in place of **ESC W**.

I tried to split the leaf of the top stem and got a TOPVIOL abend. What can I do now?

You cannot split the top leaf because the split leaf tries to insert a new stem next from the current one. You cannot insert next from the top because every topic can have only one item at the top level.

While in the leaf editor on the top leaf which you want to split, you'll have to save the leaf as it is, exit to the outline editor, and insert a new stem down to continue text entry. Then, block move any text from the top leaf into the newly created child.

When I tried to run OUT-THINK, the system locked up or crashed. What happened?

When OUT-THINK first runs, it looks at all the drives that you specified for the drive search path when you installed the program. If a drive in the search path is not available or if it doesn't have a disk in it, the system can lock up or crash depending on how CP/M is implemented on your computer. Some computers simply halt when they get to the drive in question. Then, if you insert a floppy in the drive, they continue. Other systems lock up and you have to reset the computer.

If one of the drives that you initially specified for the drive search path is no longer available, you probably should re-install OUT-THINK for your new drive search path. For example, if you removed a floppy disk from your system or you no longer have a RAMDISK available, re-install OUT-THINK and give it the new drive array.

I ran OUT-THINK, but it simply returned me to CP/M. What happened?

This happens when OUT-THINK detects unusual conditions during sign-on. For example, you typed escape keys or control keys when you entered the date or when you entered your user name and password.

Most often, you are returned to CP/M because OUT-THINK cannot find the system HELP topic (the file HELPTOP). Either HELPTOP is not available or it is locked at level 2 or 3 and you did not provide the correct name and password combination when you logged on.

HELPTOP should be on your working system disk. If not, copy it from your master to the working system disk. If you are running under CP/M 2.2 in a user area other than 0, you must have a copy of HELPTOP in your user area. If you are running under CP/M 3.0, you don't have to copy HELPTOP into your user area, but you must SET it to a SYS type file in user area 0, so it can be found from alternate user areas.

In either case, the file HELPTOP must be on a drive that you specified as part of the drive search path when you configured OUT-THINK.

I created a topic; but it's not there now. What happened to it?

Go to the topic manager and type SPBAR repeatedly to advance through all the topics available. If your missing topic is not shown on the list, it is not available.

If you are running on a floppy disk system, it is possible that the disk where you recorded the topic is not in a drive in the current drive search path. It's possible you inserted the disk in a drive that's not in the search path, or the disk is not inserted anywhere. If you find this is the case, type the N command in the topic manager before you attempt to switch the disks. Don't switch disks until after you get the "=== New Context, Ready?" prompt. Then, switch disks and type Y to the prompt.

If you are on a hard disk, it's possible that the topic is in a different user area. Under CP/M 2.2, you cannot access any file in any other user area. Under CP/M 3.0, you can only access files in user area 0 that have been set to SYS type.

Why did I get a NOTFOUND abend when I tried to Jump or Go to a topic?

The NOTFOUND abend was probably caused by renaming a topic file using CP/M file renaming utilities. Once you do this, the internal topic name that OUT-THINK uses no longer matches the CP/M file name. OUT-THINK gets confused and cannot find the topic.

Also, don't use the .TOP extension for files unless they were created by OUT-THINK or KAMAS. Again, OUT-THINK will not be able to find an internal topic name to match the file name.

How do I rename topic files?

Move the outline cursor to the top title in the topic. Use the edit title command in the outline editor (ET or =) to change the title of the top title to the new topic name. The topic name is the same as the top key in the topic. The CP/M file name is derived from the top key. You should never try to change a topic name by changing the topic file name using CP/M utilities.

When you create or rename a topic in OUT-THINK, you can assign to it a 31 character topic name. The name can contain spaces. We don't recommend that you embed control characters in any key. The key portion of the top stem in the topic is the same as the topic name. CP/M file names can only be 8 characters long and there are some restrictions on the characters you can use. For example, they cannot contain spaces. However, you do not have to worry about these restrictions when you give OUT-THINK the topic name. OUT-THINK creates a valid CP/M file name for you from the topic name. It then adds the .TOP extension.

How many pages of text can I store in a topic?

About 30% less than in a standard text file of the same size. OUT-THINK uses this extra space to maintain pointers that keep track of the structure in your text and the relationship between items in the outline. The actual number of pages you get in a topic depends on a lot of factors, but as a rough measure, you can usually get about 60 pages of text in a 180K CP/M text file. So in a 180K OUT-THINK topic file, you can get about 40 pages of structured text.

Titles take 128 bytes each, so if you make a 128K topic file, you can insert roughly 1000 titles before you fill it up. However, this leaves no room for text leafs. Leafs don't take up much more room than the actual text you type into them. For example, if your leaf is half-full, it takes about 1K. So depending on how many leafs you have and how full they are, you can figure out the number of stems that will fit into a topic of a given size:

topic size / 512	gives the approximate number of stems in the topic if most of the stems have short leafs or no leafs
topic size / 2048	gives the approximate number of stems in the topic if most of the stems have full leafs

For example, a 100K topic could have about 200 stems with short leafs. The same 100K topic could have about 50 stems with full leafs.

I got a DISKFULL abend. Can I store a topic across two disk drives?

No. A topic file must fit on a single disk drive. This is a requirement of the CP/M operating system which does not allow files to span across two or more disk drives.

The DISKFULL abend means that there is not enough room on the disk drive to store the topic file that you are trying to create.

Is there any way to free up more space on my disk drives?

Running out of space is a continual problem for all computer users, but the hardest hit are those owners of small computers with limited disk space to begin with, e.g., Apple II, Commodore 128 with a single drive, Kaypro II, Morrow MD2, Osborne I, etc.

One way to reduce OUT-THINK's requirement for disk space is to get rid of the help messages in the HELP topic and then reduce the size of HELP.TOP to 8K. (The HELP topic is required to run OUT-THINK, but you can reduce it to the minimum size.) The following instructions outline the steps to take. However, make sure you are familiar with OUT-THINK (try running the tutorials) before you attempt this. The instructions assume a two-drive floppy disk computer.

Use an empty formatted disk in drive B and your Working System Disk in drive A. (If you have only one drive, use it for your Working System Disk and make sure it has at least 8K free.)

In the topic manager, advance to the HELP topic and press RETURN to edit it. In the outline editor, edit the top key to read OLD HELP instead of HELP. By changing the top key in a topic, you change the topic name as well.

Next, return to the topic manager (type ESC T). Then, type P to prepare a new topic. If you have 8K available on your Working System Disk in drive A, then create the new topic there:

```
==== New Topic Name: HELP
      New Size: 8
```

If you don't have room on drive A, you'll have to create the new topic on drive B and later copy it to drive A. Enter the prefix B: in front of the name HELP to direct the topic to drive B.

Next, advance to the OLD HELP topic and press RETURN to edit it. Go down to the HELP title and expand it by typing X. Use the T command to mark the titles with the following keys:

```
TOPICMGR HELP
OUTLED HELP
OUTLED ESC HELP
LEAFED HELP
```

Note, there are two titles similar to OUTLED HELP and LEAFED HELP only they have a suffix of PW or WS. Make sure that you do not mark these additional titles, only the four shown above. When you type T to mark the four titles a dash character (-) appears on your screen to indicate that they are marked.

Next, type ESC C M to copy the four marked stems.

At the prompt for the destination topic, type HELP:

==== To What Topic: HELP

Then, when the copy is done you will be in the outline editor in the new HELP topic. The dummy title (COPIED) can be deleted. The other four stems contain the four main help screens for OUT-THINK.

Next, return to the topic manager and advance to the OLD HELP topic. Type K to kill the topic.

If you had to create the new HELP topic on drive B because you had no room on A, you can now copy it to drive A. Advance to the HELP topic on drive B and type B to backup the topic. Type A for the backup drive. When the backup is complete, advance to the HELP topic on drive A and type T to mark it as available for searching. Then advance to the HELP topic on drive B and type K to kill it, leaving only the backup copy on drive A.

Now, you have an 8K HELP topic instead of the 44K version that is distributed with OUT-THINK. The remaining space on drive A is free for your own use.

I got a TOPICFULL abend. What can I do?

You need to resize your topic file to a larger size using the R command in the topic manager. Or you may want to split the outlines into two or more topics using the Copy Extract command in the outline editor. Either way, you should not wait until your topic is completely full. Keep an eye on the percent full and resize it when it's 95% full.

I got a TREELOST abend. What caused this? How can I recover?

If you visualize the stems in an outline as being connected by train tracks, you can think of the TREELOST abend as a broken set of tracks. The connection between two stems has been broken somehow. You can pick up OUT-THINK and place it back on the tracks on the other side of the break and you can run OUT-THINK up to the broken track, but you cannot run it across the part with the broken track.

The broken connection can occur because one of the stems was not properly updated after it was changed. Resetting the computer in the middle of running OUT-THINK or experiencing a power failure while running can cause this condition. Always exit to the operating system using OUT-THINK commands so that any pending updates to the topic files are properly done. Also, DO NOT remove or change any diskettes unless you've exited OUT-THINK or you have done the New Context command in the topic manager.

To recover data from the broken topic, you can copy the stems up to the break and then go directly to the stem after the break using the Lookup command. Copy the stems after the break. Then, kill the broken topic. You can also try resizing the damaged topic to another of equal or larger size.

Can I run OUT-THINK with my RAMDISK?

Yes, OUT-THINK and RAMDISKS make a good combination. The most effective use of RAMDISKS is for your topic files as opposed to the program .COM files. The program is loaded into your computer's memory one time at the beginning of each session. You aren't going to speed up your overall operations by loading it from a RAMDISK. However, topic operations, especially branch copies, resizes, and other such disk operations, can be effectively speeded up using RAMDISKS. See the B command in the topic manager for a quick file copy utility to help you in running from a RAMDISK.

Can I run OUT-THINK with my hard disk?

Yes, OUT-THINK and hard disks make a good combination. During OUT-THINK installation, you can set up the drive search path as you wish for later running on a hard disk.

You probably have run into user areas if you have a hard disk. CP/M 2.2 and CP/M 3.0 each treat user areas slightly differently. In CP/M 2.2, if you run OUT-THINK in a user area other than 0, all OUT-THINK files must be available in the user area you are in. You have to have a complete copy of OUT-THINK in every user area that you want to run the program in. You cannot access files in any other user area. And if you make new files, they will be placed in the user area you are currently in. For example, if you are in user area 12 on the Kaypro 10 and you prepare a new topic on the floppy drive C, the new topic will be placed in user area 12 on drive C. If you later do a directory on drive C from user 0, you won't see the file. Don't worry though. It's still there in user area 12.

In CP/M 3.0, you don't need a copy of OUT-THINK in the alternate user areas if you SET the files as SYS type files in user area 0. However, the system topic, HELP, cannot be modified from a user area other than 0 if you run in this way. You still cannot access any topics outside your own user area.

Can I run OUT-THINK with memory resident utilities like keyboard macro programs?

Yes. OUT-THINK works well with many of these programs. OUT-THINK requires at least 48K of TPA (transient program area). Keyboard macro programs and other memory resident utilities take up space in the TPA reducing its overall size. This may reduce the size of the outline expansion buffer so that you can expand fewer titles than normal if the memory resident program were not available. However, it is unlikely that one of these programs takes up so much computer memory that you can't run OUT-THINK.

Speaking of keyboard macro programs, the appendix on aliases and shortcuts contains some suggested macros as shortcuts for sequences of OUT-THINK commands.

I have OUT-THINK. Why would I want KAMAS?

OUT-THINK is an off-the-shelf applications program for outline processing. It was designed with the 90/10 rule in mind. 90% of the time, OUT-THINK will be more than adequate for your outline processing needs.

However, there are cases where a customized solution is required to get the exact feature that you want. This is where KAMAS comes in. KAMAS is a programmable outline processor. The outline processing in KAMAS is similar to OUT-THINK. But, in addition, KAMAS offers a full programming language adapted to tailoring outline processing applications. Since KAMAS and OUT-THINK topics are compatible (See the appendix that compares the two programs.), you can develop a KAMAS program that works on OUT-THINK topics.

For example, you might need to print an outline in a special format that is not built-in to OUT-THINK. Suppose you store your family tree in OUT-THINK and you want to print it in a standard genealogical format. As another example, suppose you like the FLASHCARD quiz in the topic manager and want to expand it. You might want to add a score keeper to the program. And in a different area, you might simply want to automate some repetitive topic operation that you have to do often.

The possibilities go on and on. Some would be impractical, of course, but others would justify your investment of time to learn the KAMAS programming language and develop the vertical application. You don't have to know how to program to run an application. There is a growing body of Public Domain utility programs available for KAMAS users.

I have KAMAS. Why would I want OUT-THINK?

In some ways, OUT-THINK is like the outline processing essence extracted from KAMAS. In doing this extraction, we reduced the overall size of the program, added many often requested enhancements, and enhanced performance wherever possible. The result is a faster, smoother-running outline processor that is more comfortable to work with and is still adequate for 90% of your outline processing needs. If you are a registered owner of KAMAS, you can get OUT-THINK at a significant discount, and we think it is well worth it. If you already know how to use KAMAS, you won't have any trouble switching over to OUT-THINK. See the appendix comparing the two programs for further information.

Appendix B

For KAMAS Users Only

KAMAS is the first outline processor for the CP/M operating system and the first programmable outline processor anywhere. It contains a fully extensible language adapted to outline processing applications programs.

OUT-THINK is derived from the outline processing and information retrieval parts of KAMAS, and the two programs are very similar.

For those of you who are already familiar with KAMAS and for those of you who are just getting started with both OUT-THINK and KAMAS, this appendix points out similarities and differences between the two products. (Note: we recommend that you run the tutorials in Chapters 3 and 4. Even if you are already familiar with KAMAS, these examples will help you learn OUT-THINK more quickly.)

KAMAS and OUT-THINK can be compared in two areas: topic file compatibility and command compatibility.

Are the Topic Files the Same?

Topic files created with KAMAS can be read by OUT-THINK. Topic files created with OUT-THINK can be read by KAMAS. You can switch back and forth between the two programs on the same topic files without having to convert the topics or modify them in any way. For all intents and purposes, topic files created by the two programs are completely compatible.

In fact, there are only two minor differences between topic files created by the two programs: percent full and duplicate keys.

The percent full difference affects the reliability of the percent full display given by some OUT-THINK commands. OUT-THINK keeps track of the percent full on text leaves, and there are several OUT-THINK commands that display this information which is stored with each leaf. KAMAS does not display the percent full nor does it keep track of the percent full on the leaf. Thus, if you edit a KAMAS topic under OUT-THINK, the percent full on each leaf will be zero until you edit the leaf with the OUT-THINK leaf editor.

Likewise, if you use the KAMAS leaf editor to edit leaves in topics created by OUT-THINK, the percent full is left unchanged and is not maintained by the KAMAS leaf editor. If you later return to OUT-THINK, the percent full will be incorrect until you edit the leaf causing OUT-THINK to update the size information.

We recommend that you use the OUT-THINK resize command (in the topic manager) to resize each KAMAS topic to a new topic of the same size. The resize command writes and indexes every stem and also updates the percent full on every stem.

The second difference between topic files has to do with duplicate keys and affects the reliability of the KAMAS go key commands and query commands (both in ROVE: mode and in the programming language).

OUT-THINK allows duplicate keys within a topic. KAMAS does not. In KAMAS, each key within a topic file must be unique because of the programmable go key and query commands.

The duplicate key difference has no effect at all on KAMAS topics being edited by OUT-THINK. Also, with OUT-THINK topics that contain no duplicate keys, KAMAS works just fine.

However, with OUT-THINK topics that contain duplicate keys, the KAMAS go key commands and query commands do not work reliably on those duplicate keys.

These KAMAS commands go directly to a specific key within a topic. If your keys are not unique, KAMAS will randomly select one of the duplicate keys and go to it. However, you have no control over which key is found first.

You will have to use the manual KAMAS lookup key command instead (type LK at the ROVE: prompt). The lookup key command works like the first part of the OUT-THINK lookup command. It is an interactive command that finds all occurrences of a key and offers each one as a candidate. You can then select the one you want from the candidates presented.

Some programs written in the KAMAS programming language also contain the programmable versions of the go key commands and query commands. Such programs will not work reliably on OUT-THINK topics containing duplicate keys.

The specific commands affected in ROVE mode are:

GK QV QF QK QT QS

In the KAMAS programming language the commands affected are:

KFILEOUT KFind KFOCUS KG KISA KISA?
KJEX KKEYS KPRINT KPRINTO KSHOW KSHOWSTEM
KSTEMS KTITLES KVIEW

If you edit OUT-THINK topics and create duplicate keys, you should not use these KAMAS commands on the duplicate keys or run any KAMAS programs that use these commands on OUT-THINK topics containing duplicate keys. For example, many of the programs on KAMAS utility disks use some of these commands and won't work on OUT-THINK topics with duplicate keys. If you will be using KAMAS programs on OUT-THINK topics, you may want to enforce the duplicate key restriction on yourself to avoid potential problems.

Are OUT-THINK and KAMAS Commands the Same?

KAMAS and OUT-THINK commands are very similar to one another. Although KAMAS is not a subset of OUT-THINK nor is OUT-THINK a subset of KAMAS, there is a significant overlap between the two programs. If you have invested the time in learning KAMAS, you should be able to pick up OUT-THINK very easily. If you already know OUT-THINK, you should be able to pick up the outline processing in KAMAS without trouble.

KAMAS has four sets of commands:

- ROVE commands
- outline editor commands
- leaf editor commands
- programming language commands

while OUT-THINK has only three sets of commands:

- topic manager commands
- outline editor commands
- leaf editor commands

KAMAS outline editor commands are very similar to OUT-THINK outline editor commands. Likewise, for the leaf editor commands in both programs. If you know one of the programs, referring to the reference card for the corresponding commands in the other should, for the most part, be enough to get you going and keep you going.

Early versions of KAMAS relied heavily on ROVE commands to perform some important outline processing functions. In fact, in KAMAS almost all outline processing functions can be done in ROVE mode. Gradually, as new versions of KAMAS were released, more and more outline processing functions were added to the KAMAS outline editor and were no longer needed in ROVE. The outline editor provides a more convenient and easy way to do outline processing commands. Although all the outline processing commands are still available in ROVE mode, the only ROVE commands that are really needed are file manager commands to create topics, kill topics, etc.

In OUT-THINK, the ROVE mode is entirely replaced by the topic manager which retains only the few ROVE functions that manage topic files as opposed to processing the outlines that are in the topic files. The topic manager commands are similar to their ROVE counterparts, and, again, if you know one program, referring to the reference cards should, for the most part, be all you need to learn the other program.

The KAMAS programming language commands have no counterparts at all in OUT-THINK. OUT-THINK is simply not programmable.

The following sections provide a more detailed comparison of KAMAS commands with the corresponding OUT-THINK commands.

ROVE Commands

None of the outline processing commands in ROVE mode are available in the OUT-THINK topic manager, e.g., go, show, query, promote, demote, move, insert, delete, edit, output, etc. All of these commands can be done more conveniently from the outline editor in OUT-THINK.

The jex commands and user application are not available in OUT-THINK since they are used to run programs in the KAMAS programming language; e.g., there is no AUTOJEX in OUT-THINK.

There is no Build Topic in OUT-THINK. Instead of mounting and unmounting topics, you can mark them for searching or unmark them.

Most of the topic environment commands and some of the formatting commands in ROVE mode have counterparts in the OUT-THINK topic manager, as well as the ROVE mode lookup command. However, these commands have been streamlined to work more conveniently and efficiently in OUT-THINK.

In the KAMAS ROVE mode, you type single key commands at a prompt. Some of the ROVE commands (like topic manager commands) take effect on a given topic. In this case, you have to specify the desired topic by typing in the topic name or you have to make the desired topic into the current Build Topic. In the OUT-THINK topic manager, you simply advance to the desired topic and then enter a single key command that takes effect on the current topic. You don't usually have to enter the topic name and there is no Build Topic.

Finally, the DATE CREATED column (in various topic list displays) has been replaced in OUT-THINK by a LAST CHANGED column.

Outline Editor Commands

The OUT-THINK outline editor is very similar to the outline editor in KAMAS. There are two added title characters in OUT-THINK. In addition to the + character and . character, OUT-THINK titles can be prefixed by:

- * to indicate that they have children and have leaf text
- : to indicate that they have leaf text but no children

In OUT-THINK, you can directly see whether a title has an attached leaf.

Most of the outline editor commands in OUT-THINK are the same as the commands in KAMAS. A few of the command names are different in OUT-THINK and there are also some additional commands in OUT-THINK that are not in KAMAS.

For example, the search command is S in KAMAS and F for find in OUT-THINK. Whenever possible, the KAMAS command name is retained in OUT-THINK as an alias for the OUT-THINK command name.

The OUT-THINK outline editor has added commands like lookup a string in the entire topic context, in addition to finding a string in the outline that is currently expanded. This command includes a partial keysearch as well as a sound alike key search.

Three major additions in OUT-THINK are the marked operations, the title editor, and the copy commands. In KAMAS, you can operate on (e.g., move, delete, etc.) branches or single stems. In OUT-THINK, you can also mark multiple stems for a group operation in addition to branches or single stems.

OUT-THINK has also added a title editor. In KAMAS, you have to re-enter a key or subtitle to change it. OUT-THINK has a title editor so you can edit the key or subtitle without having to re-enter the whole thing.

OUT-THINK allows duplicate keys while KAMAS requires keys to be unique. Thus, in OUT-THINK you can make a duplicate copy of an entire branch within a topic. OUT-THINK has a complete set of copy options for copying within topics and between topics.

OUT-THINK also has built-in functions that are only available in KAMAS through utility disks, e.g., enhanced print and file output options and a file read in option. When printing in KAMAS, the right margin was a relative setting based on the value of the left margin. When printing an outline, as the left margin changed with indentation, the right margin changed with it. In OUT-THINK, the right margin is an absolute value. If you print the outline with indentation, the right margin is fixed at the column you specify and does not “grow” as the left margin indents.

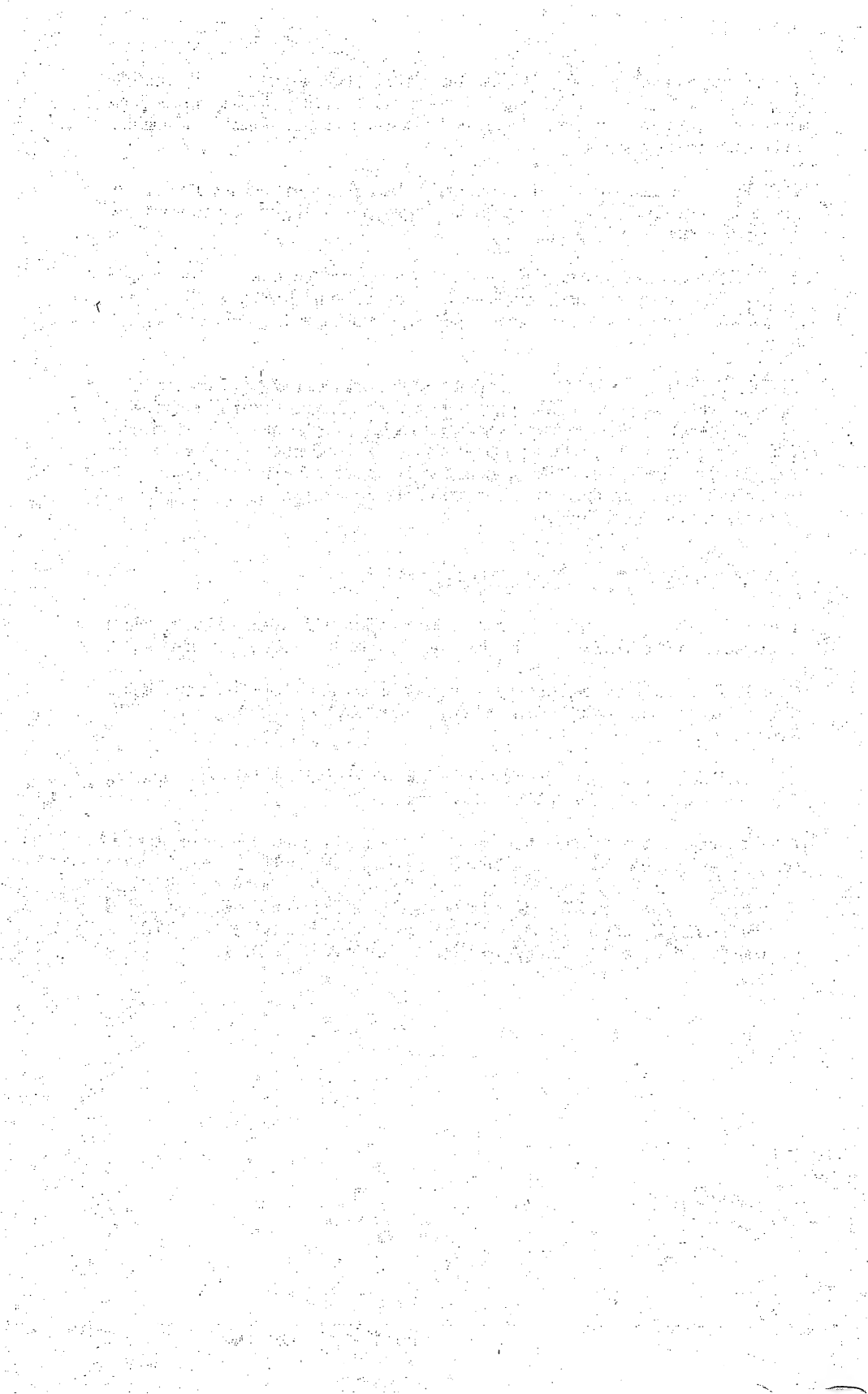
Leaf Editor Commands

The OUT-THINK leaf editor is very similar to the leaf editor in KAMAS. Additions include an overstrike mode (KAMAS only has insert mode). See the CTRL-V command.

OUT-THINK also keeps track of the percent full of each leaf and offers commands that display this information while you are editing the leaf (KAMAS does not). See the ESC S commands.

OUT-THINK has a command to delete the next word in addition to deleting characters, lines, and blocks of text. See the CTRL-T command.

A few commands have different names in the OUT-THINK editor. To save the leaf but continue editing is ESC S in KAMAS but ESC U (for update) in OUT-THINK. Showing a view is ESC V in KAMAS but ESC S V in OUT-THINK; showing a focus is ESC F in KAMAS but ESC S F in OUT-THINK; showing titles is ESC T in KAMAS but ESC S T in OUT-THINK; showing keys is ESC K in KAMAS but ESC S K in OUT-THINK; showing the old leaf is ESC L in KAMAS but ESC S L in OUT-THINK.



Appendix C

Conversion Chart —

WS To PW

When you installed OUT-THINK, you chose between two different styles of commands for the editors.

You could have chosen a set of commands that resemble the popular Wordstar-style editor (WS), or you could have chosen a set of commands resembling a Perfect Writer-style editor (PW). The functions available in OUT-THINK are identical no matter which set of commands you prefer. Only the actual keys that you press differ between the two configurations.

For consistency, all the examples in the manual use the WS-style commands. For those of you who prefer the PW-style configuration, the following charts list each WS-style command and its corresponding PW-style command. You might find it handy to make a copy of this chart to keep close by when you're going through the examples in the manual.

NOTE: The Topic Manager commands are the same for both configurations. Also, the ESC commands in the Outline Editor (i.e., the commands on the secondary options menu) are the same no matter which configuration you choose. Only the Leaf Editor commands and the main Outline Editor commands differ.

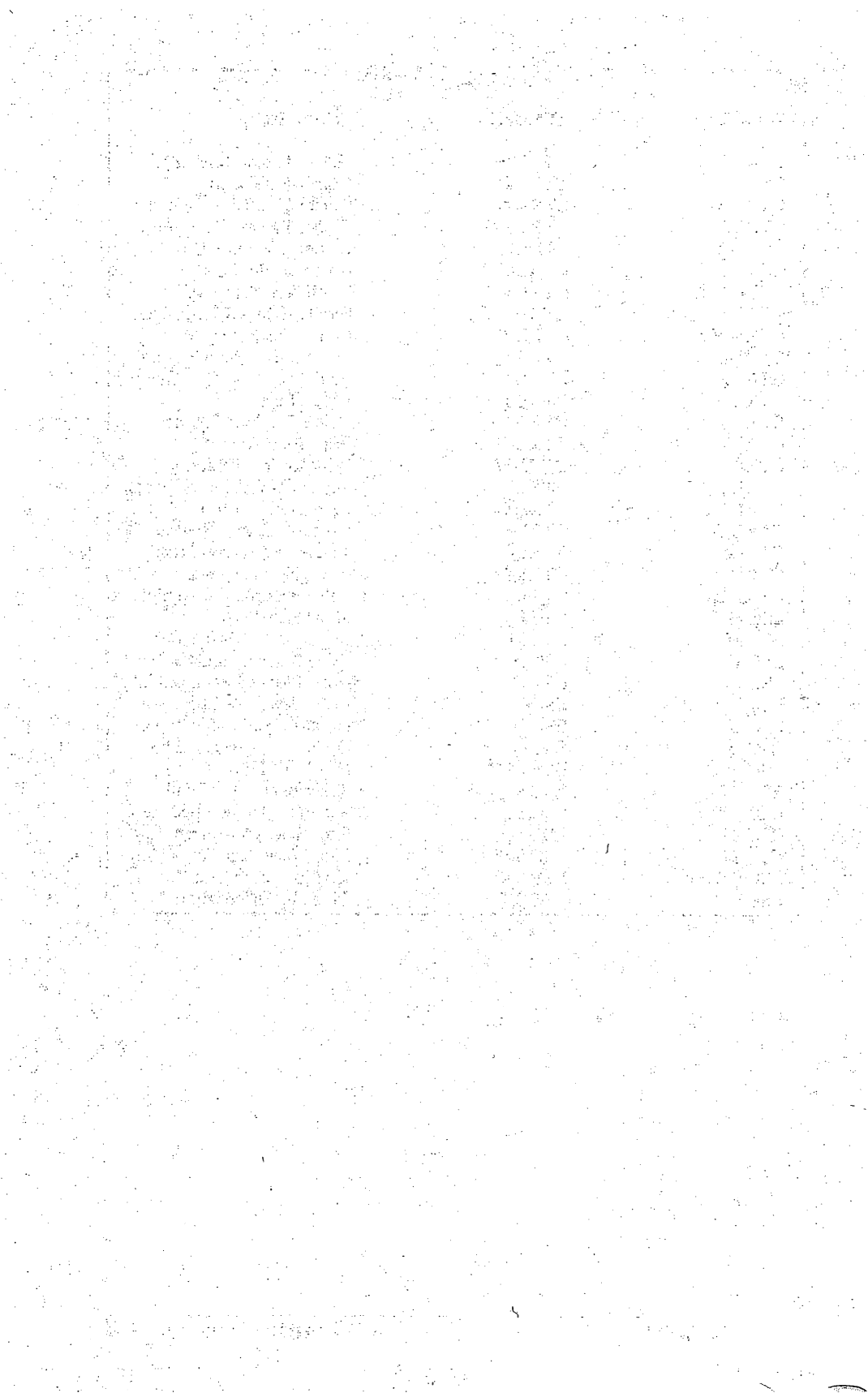
TITLE EDITOR COMMANDS		
WS-STYLE	PW-STYLE	FUNCTION
CTRL-S	CTRL-B	Cursor Back (Left)
CTRL-D	CTRL-F	Cursor Forward (Right)
CTRL-A	CTRL-A	Cursor to Beginning of Item
CTRL-F	CTRL-E	Cursor to End of Item
CTRL-G	CTRL-D	Delete Cursor Character
DEL	DEL	Delete Previous Character
CTRL-Y	CTRL-W	Delete to End of Item
CTRL-X	CTRL-X	Delete Entire Item
CTRL-U	CTRL-Y	Undo All Changes
RETURN	RETURN	Save New Edited Item and Exit
ESC	ESC	Escape Edit with no Changes

MAIN OUTLINE EDITOR COMMANDS

WS-STYLE	PW-STYLE	FUNCTION
H	H	Display Help Screen
CTRL-E	CTRL-P	Go Back One Title
CTRL-X	CTRL-N	Go Forward One Title
U	U	Go Up to Parent Title
D	D	Go Down to First Child Title
N	N	Go Next Title on Same Level
P	P	Go Previous Title on Same Level
F	F	Find String (Forward in Titles)
L	L	Lookup String (in Topic Context)
CTRL-W	CTRL-X	Center Screen on Title
CTRL-C	CTRL-V	Scroll Next Outline Screen
CTRL-R	CTRL-Z	Scroll Previous Screen
C	C	Collapse Entire Branch
X	X	Expand Next Level Down
B	B	Expand Entire Current Branch
Y	Y	Toggle Entry of Subtitles
I	I	Insert New Title [Down,Next]
=	=	Edit Current Title
E	E	Edit [Title,Leaf,Branch]
R	R	Re-Edit Outline at Top
M	M	Move [Left,Right,Down,Next]
TAB	TAB	Mark Current Branch
T	T	Mark Current Stem
-	-	Unmark Current Stem
DEL	DEL	Delete [Stem,Branch,Marked]
Q	Q	Display Leaf of Current Title
SPBAR	SPBAR	Display Leaf and Go Forward
RETURN	RETURN	Edit Leaf of Current Title
J	J	Jump to Edit Topic by Name
G	G	Go to Edit Topic (Show List)
ESC	ESC	Additional Options

LEAF EDITOR COMMANDS

WS-STYLE	PW-STYLE	FUNCTION
CTRL-D	CTRL-F	Cursor Forward (Right)
CTRL-S	CTRL-B	Cursor Back (Left)
CTRL-X	CTRL-N	Cursor Next Line (Down)
CTRL-E	CTRL-P	Cursor Previous Line (Up)
CTRL-A	CTRL-A	Cursor to Beginning of Line
CTRL-F	CTRL-E	Cursor to End of Line
CTRL-C	CTRL-V	Scroll Next Screen of Text
CTRL-R	CTRL-Z	Scroll Previous Screen of Text
CTRL-W	CTRL-X	Center the Screen
CTRL-Q	CTRL-S	Find String (Search Forward)
CTRL-Z	CTRL-R	Find & Replace With Query
CTRL-G	CTRL-D	Delete Cursor Character
DEL	DEL	Delete Previous Character
CTRL-T	CTRL-G	Wipe Next Word
CTRL-Y	CTRL-W	Wipe to End of Line
CTRL-U	CTRL-Y	Insert from Yank Buffer (Undo)
CTRL-N	CTRL-O	Open New Line for Insert
CTRL-O	CTRL-T	Open New Stem (Split Leaf)
CTRL-V	CTRL-C	Toggle Insert/Overstrike
CTRL-P	CTRL-Q	Insert Next Character
CTRL-B	CTRL-U	Reform Current Paragraph
ESC H	ESC H	Show Help Screen
ESC M	ESC M	Mark Start of Text Block
ESC W	ESC W	Wipe Block to Yank Buffer
ESC C	ESC C	Copy Block to Yank Buffer
ESC P	ESC P	Print New Edited Leaf
ESC U	ESC U	Update New Leaf to Topic
ESC Q	ESC Q	Update Leaf & Quit Editor
ESC ESC	ESC ESC	Exit Leaf Editor
ESC S P	ESC S P	Show % New Leaf Full
ESC S L	ESC S L	Show Old (Unmodified) Leaf
ESC S F	ESC S F	Show Focus to Current Key
ESC S V	ESC S V	Show View Near Current Key
ESC S K	ESC S K	Keys in Current Branch
ESC S T	ESC S T	Titles in Current Branch



Appendix D

Aliases and Short Cuts

This appendix lists command aliases and short cuts for commands in OUT-THINK. There are also a few convenience commands that are not documented elsewhere in the manual.

Throughout OUT-THINK, the ? key is an alias for the H key to obtain help. ESC ? is the same as ESC H.

Topic Manager

TOPIC MANAGER COMMAND	ALIASES
SPBAR	CTRL-X and CTRL-J
RETURN	E and =
T	TAB and M
-	U
K	CTRL-Y and DEL
ESC ESC	X

Outline Editor

OUTLINE EDITOR COMMAND	ALIASES
CTRL-R	CTRL-Z and Z
CTRL-C	CTRL-V and V
D	CTRL-D
U	CTRL-S
CTRL-X	CTRL-N
CTRL-E	CTRL-P
DEL S (delete stem)	CTRL-Y and CTRL-W
DEL	CTRL- -
ESC F A	ESC A
Q	ESC S S
TAB	M S
- repeatedly	TAB - '

1 is a shortcut to unmark all marked titles in the current outline. ESC - is an alias for TAB -.

Additional Commands

ESC P E is a convenience command in the outline editor that sends the form feed character to the printer causing the printer to eject one page of paper.

ESC P I is a convenience command which initializes your printer by sending it the printer init codes that you supplied when you first configured OUT-THINK. It does not prompt before sending the printer init codes, so **MAKE SURE** your printer is connected and online before attempting this command. Otherwise, your system could lock up waiting until the printer is ready. If you did not supply printer init codes when you configured OUT-THINK, this command does nothing.

Shortcuts for Keyboard Macros

In using OUT-THINK, you may find common sequences of commands that you enter frequently to accomplish a specific operation. You may wish to use a keyboard macro utility program to define a macro for these sequences, so you can execute the entire sequence with one keystroke. Two examples are included here.

First, in the outline editor, there is a move left command to promote a single stem. To promote a branch, i.e., move a branch left, go to the branch you want to promote and use the following sequence of commands:

```
TAB
U
M N
```

The TAB command marks the branch to be promoted. The U command goes up to its parent. The M N command moves the branch next to its parent, in effect, promoting it one level. (NOTE: This sequence only works when the branch to be promoted is not on the first level below the top because you cannot move next to the top.)

Second, there is a move right command in the outline editor to demote a single stem. To demote a branch, i.e., move a branch right, go to the branch you want to demote and use the following sequence of commands:

```
TAB
P
C
X
N
CTRL-E
M N
```

The TAB command marks the branch to be demoted. The P command goes to the previous sibling of the branch. The C command collapses the previous sibling's children (if there are any). The X command expands back just one level of the children. The C command followed by the X command just makes sure that only one level of children are expanded. The N command goes next to the branch to be demoted. The CTRL-E (use CTRL-P in a PW configuration) goes back one title to the last child of the previous sibling. The M N command moves the branch next to the last child of the previous sibling, in effect, demoting it. (NOTE: This sequence only works in the case where there are children of the previous sibling.)

In both examples, define the sequence shown as a macro and then use the macro to demote or promote branches.

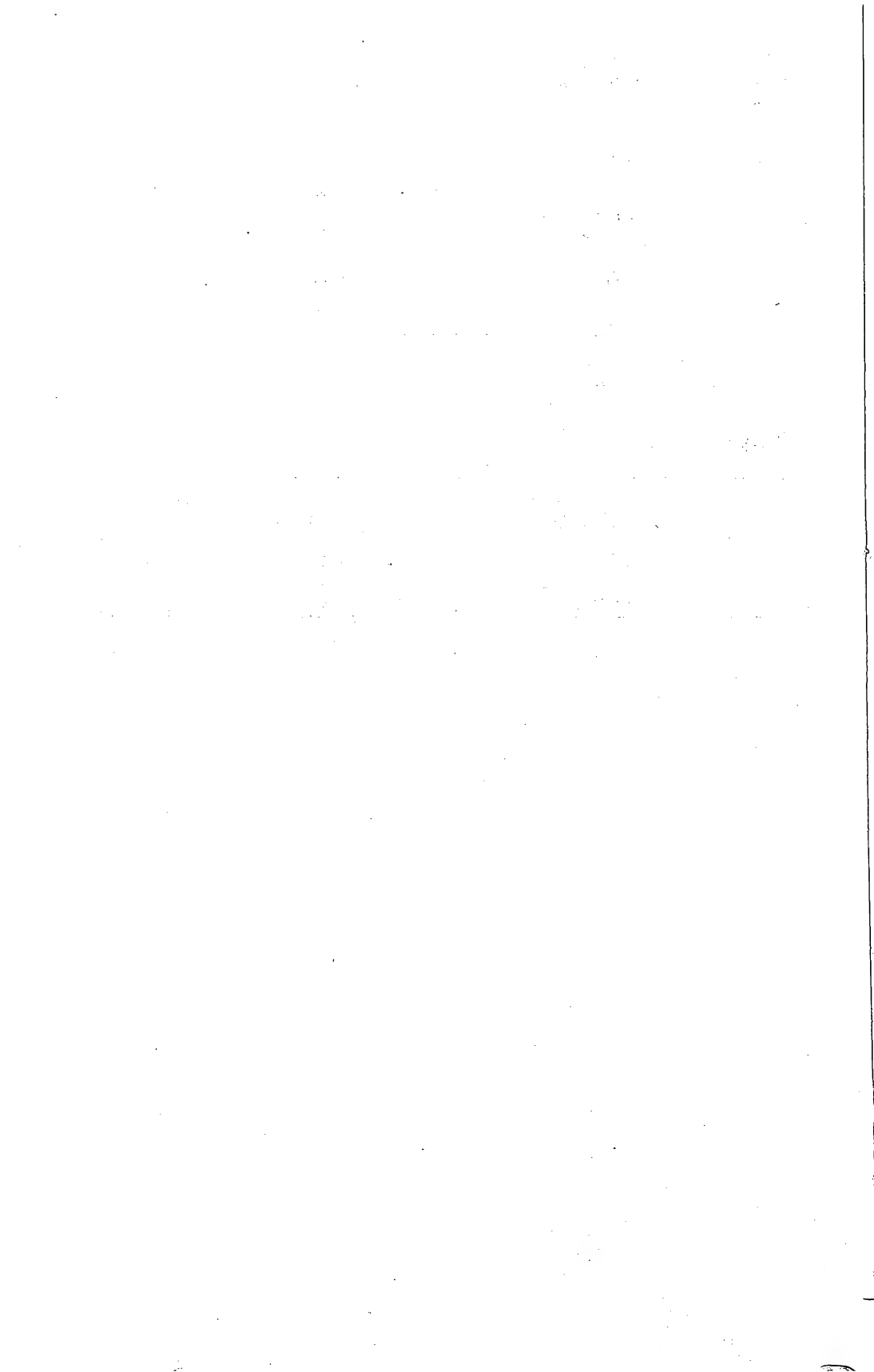
Title Editor

TITLE EDITOR COMMAND	ALIASES
CTRL-S	CTRL-B
CTRL-A CTRL-Y	CTRL-X ²
DEL	CTRL--

2 (a shortcut for the sequence)

Leaf Editor

LEAF EDITOR COMMAND	ALIASES
DEL	CTRL--
CTRL-Z	ESC CTRL-R
CTRL-T	ESC D



Glossary

abend: an abnormal ending to a command because of a detected error condition.

above: a relationship between two stems such that one is at a higher level or is superordinate to the other. In the Outline Editor, the higher stem is displayed with less indentation than the other one.

abstraction: a process of isolating certain aspects of a thing apart from or separated from the thing itself.

access methods: the recovery of specific information from stored data. In OUT-THINK, you can access information in three ways. First, you can look up a key or a string. All stems with a key that sounds like the one you specified are displayed. The stems containing the string you specified are also displayed. A second way to access information in OUT-THINK is to move the outline cursor in the outline editor until you reach the stem containing the information that you want. Finally, OUT-THINK offers a way to randomly access information with its Flash Card command in the topic manager.

advance: to move the cursor to the next topic in the topic manager by pressing the space bar.

ancestor: a stem that is above or superordinate to another is an ancestor of the other stem.

ASCII: American National Standard Code for Information Interchange. a standard code for storing characters in an electronic form so that a computer can manipulate the characters. OUT-THINK uses the ASCII code.

assign: to specify the initial values for global format parameters in the outline editor, e.g., left and right margins and page size.

backup: a copy of a topic file or the OUT-THINK program files that you can use in case something happens to the original. It is a wise practice to maintain backups for all your important files.

backward: in the outline editor, a direction in which you can move the cursor. Going backward means moving the cursor to the preceding stem on the screen regardless of its level.

below: a relationship between two stems such that one is at a lower level or subordinate to the other.

branch: part of an outline consisting of a stem and all its children or descendent stems.

child: a stem that is immediately below another is called the other stem's child.

collapse: an outline editor operation that allows you to hide the lower level details beneath a title. The lower level titles remain in the topic file; however, you cannot see them. The collapse operation helps you form abstractions because you are not distracted by all the details.

concepts: a form of knowledge. According to Ayn Rand, a mental integration of two or more units possessing the same distinguishing characteristics with their particular measurements omitted. an idea or thought formed as the result of a process of abstraction. an idea of two or more things that are regarded as a unit sharing like characteristics. in Aristotle's epistemology, a logical instrument for apprehending the essence of something.

configure: to customize or install OUT-THINK so it is best suited to run on your computer system. See the READ ME FIRST booklet for details.

control characters: a character that is typed by holding down the control key on the keyboard (usually labeled CTRL) while you press the character indicated. Control characters are typed like shifted characters. In the User's Guide, control characters are shown as CTRL-X, where X can be any character. Control characters can be typed in upper or lower case although they are usually shown in upper case in the manual. Control characters act as commands in OUT-THINK.

creative thinking: a process of originating new ideas or forming concepts. According to Arthur Koestler's theory, the process consists of forming a unifying concept that spans a juxtaposition of opposing hierarchical contexts.

current branch: the branch of the topic below the current stem, including the current stem.

current cursor: in the outline editor, your current location in the outline indicated by the screen cursor.

current key: the key of the current stem.

current leaf: the leaf of the current stem.

current stem: the stem at which the current cursor is located.

current subtitle: the subtitle of the current stem.

current title: the title of the current stem.

current topic context: the set of topics that you have marked for searching. You can list these topics with the C command in the topic manager. When you advance through topics in the topic manager, OUT-THINK shows current topics with a "+" sign while topics that are not currently marked for searching are shown with a "-".

cursor: a marker for the current location in an outline or a leaf. The commands you enter in the outline editor or in the leaf editor usually take effect at the current cursor location.

data disk: the disk containing your topic files.

deeper: at a lower level of detail in the outline. See "below".

default drive: the disk drive that is accessed when you don't explicitly specify a drive for a file operation. In OUT-THINK, the first drive you specify in your drive array is the default drive. You can specify the drive array when you install OUT-THINK and, later during an OUT-THINK session, with the ESC P command in the topic manager.

de-hoist: to re-edit at the top of the topic after you have edited a branch. See "hoist".

demotion: a topic operation in which a stem or branch is reduced to the next lower level. In OUT-THINK, you demote items by moving them right in the outline editor.

depth: the number of indentation levels of a stem in the outline.

descendent: a stem that is below or subordinate to another stem is a descendent of the other stem.

document file: a file that can be edited by the Wordstar word processor in document mode. Document files have “soft” carriage returns at the end of each line and other non-ASCII characters so they are not standard CP/M text files. You can convert topic files directly to document files and vice versa using OUT-THINK commands.

down: in the outline editor, a direction in which you can move the outline cursor. Going down means moving to the first child of the current stem, one level down from the current stem. If the children of the current stem are not expanded on the screen, going down has no effect.

expand: an outline editor operation that allows you to bring into view the lower level titles beneath a given title. See “collapse”.

focus: to display the keys in an outline showing a given key with all its direct ancestors back to the top.

format switches: a set of attributes that you can set to determine how a stem will be printed, e.g., with left justification or with hidden titles, etc.

forward: in the outline editor, a direction in which you can move the outline cursor can be moved. Going forward means moving ahead to the subsequent stem on the screen regardless of its level.

free topic: a topic that has no current owner.

go: in OUT-THINK, you can edit a topic in four ways: by going to the topics list and then entering the name of the topic you want to edit; by advancing through the topics list in the topic manager and pressing RETURN when you reach the topic you want to edit; by jumping directly to a topic by specifying its name without going through any list; and by looking up a key or string in the current context and accepting one of the candidates.

help levels: a control for the amount of help that is supplied during an abend. In OUT-THINK, you can set the help level from the topic manager.

hidden titles: the hidden title format switch can be set on individual stems or branches to skip the titles on formatted output. You get the effect of a single long stream of text under the most recent unhidden title.

hierarchy: a collection of elements organized in levels so that each element (except the top) is immediately subordinate to exactly one previous element (its parent) and every element is superordinate to zero or more other subsequent elements (its children).

higher: closer to the top stem.

hoist: to edit a branch of a topic file. In OUT-THINK, you hoist a branch by editing it in the outline editor. Hoisting helps you zoom in on a detailed level without being distracted by the other levels in your outline. Also, hoisting helps you expand the lower levels of a very large outline that would otherwise overflow the computer's memory.

idea processing: methods for storing, organizing, and investigating your developmental notes and ideas. Idea processors represent the semantic relationships between your concepts. Idea processors, such as spreadsheet programs, let you ask what-if questions about a problem domain and then use the leverage of the computer to reveal answers to the what-if questions. With the advent of tools like OUT-THINK, this term is being flavored by an ingredient of computerized support for creative thinking.

inferences: a form of knowledge. arguments, reasoning, deductions. in Aristotle's epistemology, an instrument for apprehending the cause of something.

information retrieval: the recovery of specific information from stored data.

insert: in the outline editor, to convert an existing CP/M text file or Wordstar document file into a topic file. also, in the outline editor, to add new titles at the current outline cursor. in the leaf editor, a way to enter text so that all the text you type is added to the leaf at the current leaf cursor.

install: to back-up the Master System Disk and then configure OUT-THINK on the Working System Disk. See the READ ME FIRST booklet for details.

jump: in OUT-THINK, you can edit a topic in four ways: by jumping directly to a topic by specifying its name without going through any list; by going to the topics list and then entering the name of the topic you want to edit; by advancing through the topics list in the topic manager and pressing RETURN when you reach the topic you want to edit; and by looking up a key or string in the current context and accepting one of the candidates.

key: a part of a stem that can be used to directly access that stem rapidly no matter how large the topic file is. The key together with the subtitle makes up the title. The key can be thought of as the name of a stem and can be used to unlock the knowledge in the stem.

kill: in OUT-THINK, to kill a topic file means to delete the topic file.

knowledge: intention in the form of concepts, propositions, or inferences represented by structured text in OUT-THINK outlines.

knowledge management: acquiring, storing, modifying, and retrieving knowledge.

leaf: a part of a stem containing up to 2420 characters of text. The text can be formatted in any way. Leafs help you develop a universe of text representing your knowledge.

leaf editor: one of the three parts of the OUT-THINK program. The leaf editor lets you edit the optional leaf of text that can be attached to each title in the outline. The leaf editor is an interactive, full screen editor.

left: moving left is the same as promoting up a level.

level: the amount of indentation of a stem indicating its relative position in the hierarchy.

leverage: multiplication of effort through the use of a simple machine.

lock levels: levels at which a topic can be secured from unauthorized access. In the OUT-THINK system, there are four lock levels protected through the use of a user name and password. Level 0 topics are not locked and can be accessed freely. Level 1 topics can be entered and displayed but cannot be modified without the proper password and user name. Level 2 topics can be modified freely but cannot be entered without the proper password and user name. In other words, a level 2 topic requires an appropriate user name and password to be entered. However, once entered, it can be freely modified with no further checks. Level 3 topics cannot be modified or entered without the correct password and user name. The only effective difference between level 2 and level 3 is the extra checking done on level 3 topics each time a modification is attempted.

lookup: in the outline editor, you can move the current cursor to another stem in the topic you are currently editing or in any topic in the current context by looking up the stem and specifying its key or by specifying a string found in its leaf. You can also look up a stem from the topic manager and edit the topic where the key or string is found.

mark: in the topic manager, you mark topics to add them to the current topic context and make them available for searching. In the outline editor, you mark stems or branches for moving, copying, or deleting. In the leaf editor, you mark the beginning of a section of text for moving, copying, or deleting.

mind amplification: the process of augmenting or leveraging the human intellect through the use of tools such as OUT-THINK.

next: in the outline editor, a direction in which you can move the outline cursor. Going next means moving the cursor to the subsequent stem on the same level as the current stem.

neighborhood: the area of the outline surrounding a stem including a range of levels above and below the surrounded stem.

operating system: the main control program for your computer. CP/M is the operating system that OUT-THINK runs under. The operating system accepts, interprets, and executes the commands you enter at the keyboard.

outfile: to convert an OUT-THINK topic to a CP/M text file or a Wordstar document file.

outline: a collection of text that is organized or structured hierarchically. Outlines are useful aids in writing and in other areas where you have to organize information. In OUT-THINK, outlines are contained in topic files as branches of the topics.

outline cursor: a character on the screen (often a blinking solid box or a blinking underline) that indicates the current location in the topic you are editing or the current location in the leaf you are editing.

outline editor: one of the three parts of the OUT-THINK program. The outline editor presents an interactive, full-screen editor for inserting, deleting, editing, moving, copying, displaying, and printing items in an outline.

outline processing: storing, retrieving, creating, and changing structured text.

parent: a stem that is immediately above another is called the other stem's parent.

prepare: in OUT-THINK, preparing a topic means creating the topic. Its initial size must be specified when it is created. The topic size can later be changed with the re-size command in the topic manager.

previous: in the outline editor, a direction in which you can move the outline cursor. Going previous means moving to the preceding stem on the same level as the current stem.

productivity tools: a class of computer programs that enhance or increase personal productivity.

promotion: a topic operation in which a branch, stem, or level is raised to the next higher level. In OUT-THINK, you promote items by moving them left in the outline editor.

prompt: a method of requesting input from the user by displaying a message on the screen describing the input requested and awaiting the operator's response from the keyboard.

propositions: a form of knowledge corresponding to statements. In Aristotle's epistemology, an instrument for apprehending the existence of something.

protection: in OUT-THINK, the safeguarding of topics by locking them so they can't be accessed without authorization. See "lock levels".

query: to display the outline relative to a stem that you specify by entering its key.

re-size: to change the size of a topic. In OUT-THINK, you specify a size for topic files. The initial size can later be changed by re-sizing the topic using the re-size command in the topic manager.

retrieval techniques: the recovery of specific information from stored data. In OUT-THINK, you can access information in three ways. First, you can look up a key or a string. All stems with a key that sounds like the one you specified are displayed. The stems containing the string you specified are also displayed. A second way to access information in OUT-THINK is to move the outline cursor in the outline editor until you reach the stem containing the information that you want. Finally, OUT-THINK offers a way to randomly access information with its Flash Card command in the topic manager.

right: moving right is the same as demoting down a level.

scroll: to move the cursor to the next screen in the outline editor or leaf editor.

set: to specify global parameters in the topic manager, e.g., the system date or help level. to enable or disable format switches on stems.

show: to display the outline relative to the current stem.

sibling: the stems that are on the same level beneath a single parent are called siblings.

stem: an item in a topic consisting of a title and a leaf. The title consists of a key and a subtitle.

string: a word or phrase, consisting of a sequence of characters.

structured text: text that, through some type of system (manual or computerized), reveals a semantic structure. The structure can be manipulated as an entity independent of the text content.

subordinate: See “below”.

subtitle: a part of a stem. The subtitle, combined with the key, makes up the title of a stem.

superordinate: See “above”.

system disk: either the Master System Disk, i.e., the distribution disk containing the OUT-THINK program files, or the Working System Disk, which is a copy you make from the Master for configuration and day-to-day use of OUT-THINK.

text file: a standard CP/M file containing a sequence of ASCII characters. OUT-THINK topic files can be converted to CP/M text files and vice versa using commands in the outline editor. Text files can be edited with most word processors (in Wordstar, text files are edited in non-document mode).

thinking: the application of reason to knowledge.

title: a part of a stem consisting of a key and a subtitle.

title characters: the two characters preceding each title displayed on the screen in the outline editor. The first character can be any one of the following:

- * indicating that the stem has children and a leaf.
- + indicating that the stem has children but no leaf.
- : indicating that the stem has no children but does have a leaf.
- . indicating that the stem has no children as well as no leaf.

The second character can be a blank space indicating that the title has not been tagged for copying, moving, or deleting; or it can be a “-” indicating that the title has been tagged for copying, moving, or deleting.

toggle: to switch back and forth between one of two values. For example, in OUT-THINK, you can toggle the prompt for subtitles when you are inserting stems in the outline editor. In the leaf editor, you can toggle between overstrike or insert mode.

top: the highest level stem in a topic. There can only be one stem at the top; it can have no siblings or ancestors. The key of the top stem is the same as the topic name. The only way to change the topic name is to edit the top title and change its key. Do not use CP/M file rename utilities to change the topic name.

topic: a file containing a structured text outline consisting of stems linked to one another in a general tree hierarchy.

topic manager: one of the three parts of the OUT-THINK program. The topic manager helps you to manage topic files on the disk. You can prepare new topics, kill old ones and perform other topic operations.

trees: an analogy for topics which can be viewed as having a tree-like structure.

unmark: in the topic manager, removing a topic from the current context for searching. in the outline editor, removing a stem or branch from being the source of a copy, move, or delete.

up: in the outline editor, a direction in which you can move the outline cursor. Going up means moving the topic cursor to the parent of the current stem.

view: to display the neighborhood of keys surrounding a given key. The view levels determine how many levels up and down are included in the view. Initially, the view levels are set to show one level up and one level down. You can set new view levels in the topic manager.

wipe: to remove a block of text from a leaf and store it temporarily in the yank buffer.

write protect: to protect a floppy disk by placing a gummed tab over the notch on the edge of the disk. Do not write protect your Working System Disk or your data disks when using OUT-THINK because the program must record information on both disks during its operation. Make sure that you keep the Master System Disk write protected and in a safe place as a permanent backup copy of the program.

yank: to restore or insert a block of text that was previously wiped or copied from a leaf into a temporary storage area called the yank buffer.

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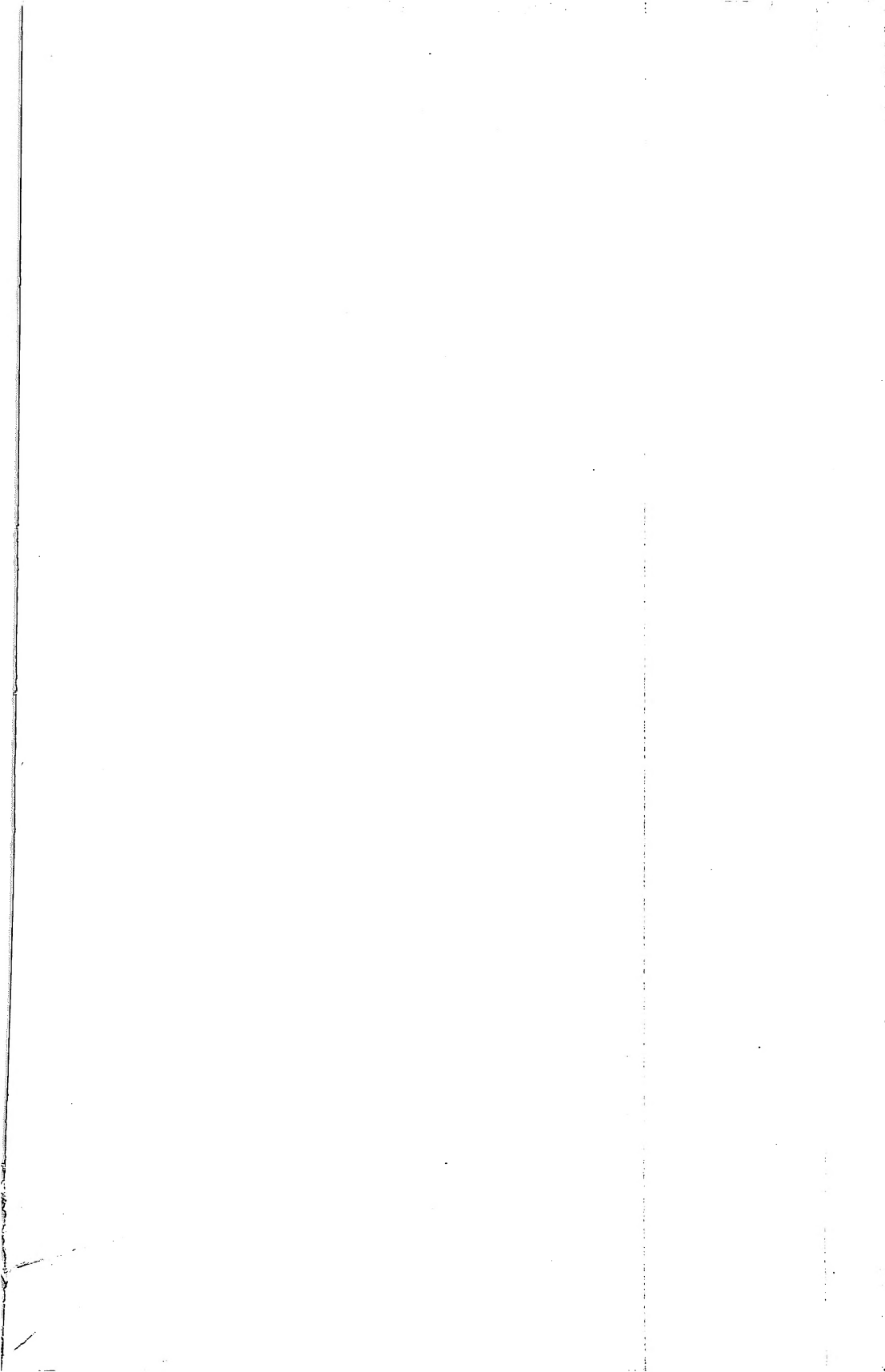
Yank 5-79

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